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MONTHLY REPORT

OF THE

DEPARTMENT OF AGRICULTURE,

FOR

JANUARY,

1869.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1869.

MONTHLY REPORT.

WASHINGTON, D. C.,
January 30, 1868.

SIR: I herewith submit for publication the monthly report of this division for January, including a statement of the comparative yield and prices of the farm crops of 1868, from returns made January 1, with extracts from correspondence, and other matter relating to cattle diseases, pork packing, the sugar trade of the United States in 1868, the trade of New York, trade of Chicago, prices of produce, reports of live stock receipts at New York, Boston, Chicago, and St. Louis, scuppernong wine analysis, forests, and facts from various sources.

J. R. DODGE, *Statistician.*

Hon. HORACE CAPRON,
Commissioner of Agriculture.

YIELD AND PRICES OF FARM CROPS.

The accompanying tables show the estimated yield and average prices (on the 1st of January, 1869) of the principal crops of the past year, and are designed as the basis of calculations for the annual tables of production.

The yield of wheat per acre in New England is scarcely equal to that of the previous season, except in Vermont. The average yield of New York is placed at 14.6 instead of 14.5 last year. New Jersey gives one-tenth of a bushel less, and Pennsylvania three-tenths more; Virginia four-tenths of a bushel more, and the more southern Atlantic States all make a decline in the average. Texas and Tennessee report a smaller yield than last year, while Arkansas claims an advance from 9.2 to 13.5 bushels. Kentucky and West Virginia make no material advance, and Ohio scarcely holds the previous average. A small increase appears in Indiana, Illinois, and Wisconsin, and a still more marked result is shown in Minnesota. An increase is made in Iowa and Kansas.

The decline in the price of wheat is quite noticeable, in twelve months, amounting to 42 cents per bushel in New England, 56 cents in New York, 47 cents in New Jersey, 45 cents in Pennsylvania, 71 cents in Ohio, 77 cents in Illinois, 48 cents in Iowa, with differences less striking in the southern States, which grow cereals only for home consumption. In the central and populous parts of the west the prices are this year lower relatively to the more western and northwestern States than last year: as Illinois compared with Iowa, $1 97 to $1 43 last January; $1 20 to 95 cents now. The price of barley is, on the contrary, higher than in January last, in most of the States. Oats maintain their former rate in some of the New England States, but show a decline in the middle

and most of the western States, except in Kansas, where they are higher than last year.

The variation in prices of corn in the different sections may be seen at a glance in the following comparison:

	January, 1868.	January, 1869.
Massachusetts	$1 53	$1 32
New York	1 32	1 12
Maryland	1 09	87
Georgia	96	91
Mississippi	1 09	74
Ohio	82	60
Illinois	68	43
Kansas	55	99

The crop in Kansas was in 1867 very heavy, and last season unusually short.

An examination of the tables will disclose a considerable reduction in the price of potatoes, owing to an increased production as much as to the general tendency to a decline in prices of all farm products.

Winter wheat.—A small increase of acreage of winter wheat is reported, barely enough to equal the increase in population. The largest increase is in Missouri, Arkansas, and Kansas. In condition the crop indicates nearly or quite an average, except in Wisconsin, Michigan, West Virginia, Tennessee, Alabama, with a slight reduction in New York, Connecticut, and a few other States. On the whole the crop may be said to have obtained a fair start, which is all that can be claimed for it at present.

Table showing the average price and yield per acre of the principal crops of the United States for 1868, *comparative amount of winter and spring wheat, and the area and condition of winter grain.*

STATES.	WHEAT.				RYE.		BARLEY.		OATS.	
	Average *yield* per acre in 1868, stated in bushels.	Average *price* per bushel on 1st day of January, 1869.	How many tenths of the usual crop are winter wheat.	How many tenths of the usual crop are spring wheat.	Average *yield* per acre in 1868, stated in bushels.	Average *price* per bushel on 1st day of January, 1869.	Average *yield* per acre in 1868, stated in bushels.	Average *price* per bushel on 1st day of January, 1869.	Average *yield* per acre in 1868, stated in bushels.	Average *price* per bushel on 1st day of January, 1869.
Maine	10	$2 40	.4	9.6	15	$1 61	16.1	$1 26	22	$0 82
New Hampshire	11.7	2 42	1.2	8.8	12.8	1 58	21.6	1 47	26.5	76
Vermont	16	2 26	.7	9.3	14.8	1 43	23	1 44	30	75
Massachusetts	15.5	2 40	4.3	5.7	16.1	1 66	20.1	1 56	24.1	90
Rhode Island	.....	.....	.....	.....	16.6	1 85	23	1 60	28	77
Connecticut	15.5	2 00	7	3	14.5	1 48	20	1 26	27.7	82
New York	14.6	2 08	6.6	3.4	15.1	1 37	21.4	1 78	26	74
New Jersey	13.9	2 11	10	.....	13.5	1 50	.....	.....	22.4	69
Pennsylvania	12.8	1 98	9.3	.7	13.2	1 32	21.4	1 64	27.8	64
Delaware	12	1 90	10	.....	.....	.....	.....	.....	8	60
Maryland	10.2	2 09	10	.....	12.1	1 35	23.5	1 22	18	64
Virginia	8.4	1 90	10	.....	8.3	1 18	.....	.....	17.8	54
North Carolina	5.9	2 00	9.3	.7	7.4	1 29	15.6	1 25	13	65
South Carolina	5.6	2 25	9.5	.5	5	1 58	.....	.....	9.7	85
Georgia	5.6	2 20	9.9	.1	6.9	1 70	15.5	2 15	12.5	79
Florida	9	2 75	10	.....	10	1 75	.....	.....	11.5	1 00
Alabama	6.1	1 98	9.9	.1	5.8	1 69	10.1	1 83	11.7	88
Mississippi	9.1	2 19	8.6	1.4	10.5	1 97	.....	.....	15.3	1 01
Louisiana	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Texas	6	2 25	9	1	11.8	1 59	11	2 16	26.6	90
Arkansas	13.5	2 00	9.8	.2	13.3	1 06	.....	.....	22.5	80
Tennessee	6.6	1 88	9.7	.3	9	1 25	18.3	1 43	17.4	63
West Virginia	10.7	1 88	9.4	.6	13.6	1 22	17.2	1 86	24.7	51
Kentucky	8.5	1 86	9.9	.1	11.5	1 22	16	1 67	22	48
Missouri	14	1 49	8.5	1.5	18.5	96	24.2	1 74	32.9	43
Illinois	11.5	1 20	5.9	4.1	16.2	93	25.8	1 36	31.9	39
Indiana	11.2	1 50	9.1	.9	14.9	1 06	20.5	1 57	26.5	46
Ohio	11	1 65	9	1	13.6	1 14	22.5	1 47	29	50
Michigan	12.5	1 64	8.9	1.1	18.1	1 09	23.3	1 56	30.1	50
Wisconsin	13	1 00	1.8	8.2	18.6	90	24	1 35	32	49
Minnesota	15	83	.2	9.8	20.6	68	25	1 14	36	48
Iowa	14	95	.6	9.4	19	85	26	1 24	33	35
Kansas	15.6	1 35	5.9	4.1	20.8	1 03	23	98	25	57
Nebraska	15.5	96	.1	9.9	18.3	1 00	25	1 41	30.4	54

Table showing the average price and yield per acre of the principal crops of the United States for 1868, *&c.*—Continued.

STATES.	CORN.		BUCKWHEAT.		POTATOES, (solanum tuberosum.)		POTATO'S, (batatus edulis,) sweet		LEAF TOBACCO.	
	Average *yield* per acre in 1868, stated in bushels.	Average *price* per bushel on 1st day of January, 1869.	Average *yield* per acre in 1868, stated in bushels.	Average *price* per bushel on 1st day of January, 1869.	Average *yield* per acre in 1868, stated in bushels.	Average *price* per bushel on 1st day of January, 1869.	Average *yield* per acre in 1868, stated in bushels.	Average *price* per bushel on 1st day of January, 1869.	Average *yield* per acre in 1868, stated in pounds.	Average *price* per pound on 1st day of January, 1869.
Maine	29.8	$1 38	23	$0 96	130	$0 78	.....	.....	.....	.....
New Hampshire	40.8	1 43	20	93	132	71	.....	.....	.....	.....
Vermont	38.5	1 34	14	96	135	60	.....	.....	.....	.....
Massachusetts	37	1 32	13.2	1 08	116	.93	.....	.....	1,300	$0 23
Rhode Island	27	1 65	.....	.....	101	1 07	.....	.....	.....	.....
Connecticut	34	1 35	18.2	1 20	117	91	.....	.....	1,450	25
New York	32	1 12	19.7	1 01	94	.76	.....	.....	800	12.5
New Jersey	37.5	99	16.7	1 28	97	97	92	$1 26	.....	.....
Pennsylvania	35	1 00	16.5	1 09	88	93	90	1 66	.....	.....
Delaware	25	85	20	1 25	75	1 00	50	1 50	.....	.....
Maryland	27.7	87	18.7	1 20	94	93	107	1 28	560	10.8
Virginia	19.3	76	18.4	.98	74	74	98	1 07	783	8.5
North Carolina	14.3	78	15.6	83	76	89	83	66	657	16.7
South Carolina	10.2	1 00	.....	.....	101	1 55	102	79	.....	.....
Georgia	12.7	91	.....	.....	102	1 48	102	62	585	30
Florida	10.5	1 41	.....	.....	110	1 70	150	52	.....	.....
Alabama	10 8	86	.....	.....	61	1 51	72	54	566	28
Mississippi	17.1	74	.....	.....	65	1 45	110	58	783	33.3
Louisiana	22	75	.....	.....	162	1 75	145	67	.....	.....
Texas	25	62	.....	.....	61	1 50	149	55	466	32
Arkansas	30.5	63	.....	.....	63	1 32	141	89	900	11.6
Tennessee	25.3	49	11.4	1 21	73	75	64	90	815	16.4
West Virginia	35	75	21.8	1 01	69	90	60	1 55	611	17.1
Kentucky	32.7	47	15	1 23	80	67	67	1 06	705	12.7
Missouri	30.3	57	17.3	1 03	90	90	104	1 54	796	11.3
Illinois	34.2	43	16.6	1 07	71	81	91	1 41	757	9.1
Indiana	34	52	19.3	95	88	75	71	1 62	705	10.5
Ohio	34	60	17.3	1 07	79	84	80	1 66	814	7.6
Michigan	33	76	19.4	82	94	56	.....	.....	.....	.....
Wisconsin	33	58	18.5	81	77	72	.....	.....	.....	.....
Minnesota	33.5	64	19.4	1 03	151	61	.....	.....	.....	.....
Iowa	37	37	17.2	1 05	96	63	88	1 75	.....	.....
Kansas	18	99	17.5	1 27	85	94	112	1 79	.....	.....
Nebraska	22.9	69	11.3	1 25	66	1 05	.....	.....	.....	.....

Table showing the average price and yield per acre of the principal crops of the United States for 1868, *&c.*—Continued.

STATES.	HAY.		SORGHUM MOLASSES.		WINTER WHEAT.		WINTER RYE.		WINTER BARLEY.	
	Average *yield* per acre in 1868, stated in tons.	Average *price* per ton on 1st day of January, 1869.	Average *yield* per acre in 1868, stated in gallons.	Average *price* per gallon on 1st day of January, 1869.	Average amount sown compared with 1867.	Condition of the crop compared with an average.	Average amount sown compared with 1867.	Condition of the crop compared with an average.	Average amount sown compared with 1867.	Condition of the crop compared with an average.
Maine	1.02	$12 00	.....	.....	9.8	9.8	10	10	.....	.....
New Hampshire	1	13 50	.....	.....	9.6	10.2	9.4	10	.....	.....
Vermont	1.02	14 50	.....	.....	9.3	9.6	10	9.8	.....	.....
Massachusetts	1.37	18 37	100	$1 37	10	10	9.7	10.1	.....	.....
Rhode Island	1.12	20 00	.....	.....	.....	.....	10	10	.....	.....
Connecticut	1.15	17 25	125	85	10	9.6	10	9.6	.....	.....
New York	1.35	15 00	.....	.....	10.3	10.1	9.8	10	10	10.1
New Jersey	1.40	19 00	70	93	10.1	9.4	10.1	9.6	.....	.....
Pennsylvania	1.35	16 00	92	80	10.5	10.1	9.8	10	10.3	10.1
Delaware	1.25	20 00	80	55	10	9	10	10	.....	.....
Maryland	1.28	16 77	98	75	10.1	9.6	9.8	9.5	.....	.....
Virginia	1.22	13 00	79	58	11.8	10.6	10.4	10.4	.....	.....
North Carolina	1.25	15 00	72	57	10	9.8	10	9.5	9.6	10
South Carolina	.95	17 00	44	72	10.7	9.1	10	9.1	10	9
Georgia	1	21 90	88	57	11.5	9.3	9.9	9.7	10.1	9.7
Florida	.....	.....	160	62	8	10	10	6	.....	.....
Alabama	1.66	19 28	88	76	10.3	8.9	9.1	9.3	10.4	9.6
Mississippi	1.25	17 00	73	84	9	9.6	9.4	10	8.6	9
Louisiana	2	10 00	.....	.....	.....	.....	.....	.....	.....	.....
Texas	1.25	10 00	107	92	7.5	10.6	8.6	10.2	8	10.3
Arkansas	1.25	16 00	98	61	13.1	10.3	10.2	9.1	.....	.....
Tennessee	1.25	15 50	90	63	10.9	9.6	9.7	9.7	10.7	10
West Virginia	1.25	15 00	95	76	11	9.9	9.6	9.8	8.6	10
Kentucky	1.27	13 25	96	62	10.6	10.7	10.4	10.4	10.2	10.2
Missouri	1.40	11 00	106	63	13	10.8	10.1	10.7	10.3	10.5
Illinois	1.40	10 00	93	68	10	10.8	10.1	10.4	9.7	10.7
Indiana	1.35	11 09	96	66	10.7	11.1	10.3	10.7	10	10.3
Ohio	1.30	13 80	112	75	10.6	10.8	10.1	10.4	10	10.1
Michigan	1.25	15 00	80	79	10.7	9.4	10.2	10	10.1	10.1
Wisconsin	1.20	11 00	124	78	9.7	9.5	9.8	10	9.3	10.3
Minnesota	1.40	7 00	103	90	10.2	10.2	10.2	10	10	11
Iowa	1.50	6 50	117	73	10.2	9.2	10.1	10.3	10.5	13.3
Kansas	1.45	8 16	98	73	13	11.6	10.8	10.4	10	9.2
Nebraska	1.87	5 40	126	97	.....	.....	12.6	10.3	.....	.....

EXTRACTS FROM CORRESPONDENCE.

FRUITS ON THE HUDSON.

Orange county, N. Y.—The fruit region of the Hudson extends from the Highlands on the south to Kingston on the north, a distance of about 40 miles, embracing the towns on the west bank of the river. The towns of Marlboro, Loyd, and Newburg are most noted for the extent and variety of small fruits. The slaty soil of Marlboro is especially adapted to the production of the Red Antwerp raspberry. Not less than 500 acres are cultivated in the town, giving a gross product of $300,000 per annum. An acre of Antwerps in full bearing is valued at $1,000. Good Antwerp land is worth from two to five hundred dollars per acre. They require dry soil, high manuring and good cultivation. The bearing canes need winter protection, which is afforded by bending them down and giving them a slight covering of earth. This is often done by having a boy hold them down and turning a furrow of earth over them. The wood which has fruited is cut out after the fruiting season is over. New canes for next year's fruiting are raised each year. There have been some indications of mildew on the plants the past two summers, occasioned, we think, by the extreme heat and excessive moisture in July and August. The disease is not very prevalent, and we hope a change of seasons will cause it to disappear. The Antwerp culture in this section only extends back about 25 years, yet there are many patches in the town of Marlboro which have been in bearing 20 years and are still productive. Almost every landholder in the town has an Antwerp patch, and since their introduction and extensive cultivation in the town the price of real estate has advanced at least one-half. Almost every Antwerp grower likewise cultivates strawberries, as the same packages will answer for both, the strawberry season generally being over by July 4, when the Antwerp picking commences and lasts till about the middle of August. The Wilson strawberry is most in favor with us at the present time as a market berry, and the annual product per acre is about two-thirds that of the Antwerps. Plants of the strawberry and Antwerp meet with ready sale at $5 per thousand for the former and $30 to $40 per thousand for the latter. New York city, 60 miles distant, is our market, where they are sold at wholesale by commission merchants.

FRUITS IN UTAH.

Kane county, Utah.—Our soil is principally sandy loam, in some portions the sand prevailing, yet quite productive in wheat, corn and potatoes, the sandier portion excellent for sorghum and cotton. Apples, peaches, pears, plums, grapes, and all the varieties of small fruits that have been tried do exceedingly well. As to apples, the Limber Twig has the preference as a keeping apple. We have in some of our orchards over 40 varieties from the States, with a number of varieties of seedlings which have been raised in Utah, some of which are not excelled by any that we have tried. Peaches are principally seedlings, still superior to any raised in the northern part of the Territory, for the trees appear to be perfectly at home in our soil and climate, and seem to vie with each other which shall produce the most luscious fruit. I have lived here seven years and have known but one failure, and that through frost when peaches were in bloom, which is something unusual. Pears and plums are equally fine. Grapes are generally of the Los Angeles or California variety, which is considered the standard at present. We are introducing a great many varieties that have not yet been proved, with a number of seedlings that promise well; we have introduced the Fiher Tagus, which

promises well to be our raisin grape. William A. Martindale, president of the society, had vines three years old from the cuttings that bore 25 pounds on an average, and some vines on his arbor, same age, 50 pounds; these were the Los Angeles or California. By the Rio Virgin river cutting the Wasatch range of mountains, we are protected from the heavy northern winds and snows; consequently we have to irrigate our land at a very heavy expense.

WHEAT.

Leavenworth county, Kan.—Fall wheat is best suited to our wants, though considerable spring wheat is raised, and to some extent preferred. The only objection I hear urged to fall wheat is the freezing out. By using the drill this can be obviated. Fall wheat the past year yielded exceedingly well. One crop of 100 acres sowed broadcast upon sod, averaged 26 bushels per acre, and a crop of seven acres yielded $37\frac{3}{4}$ bushels per acre. The grain shrunk somewhat from effects of rust and chinch bug.

Baltimore county, Md.—The majority of farmers are improving in wheat culture; more manures are applied, the drill is used, and the ground put in proper condition. These farmers mostly had slight losses from either midge or rust; this we call the proportionate acreage of good culture. The proportionate acreage of bad culture is too late seeding and without manure. It can be stated that not less than one-fourth of the entire crop is seeded annually in this imperfect manner. These farmers are always unlucky with their wheat crop, generally harvesting less than half an average crop.

King George county, Va.—Farmers of the Rappahannock have thrown into market an unusually large portion of the corn crop. The steamboats have been heavily laden ever since the crop has been fit for shipment, and large quantities await shipment at various landings. The price has averaged about 90 cents per bushel of 56 pounds, being 30 cents less than at the same time last year.

Burlington county, N. J.—We have had no snows to protect winter grain thus far in the season; for some reason it did not start off as well as usual in the autumn.

Smythe county, Va.—Last fall's sowing of wheat is looking very fine at present.

Stafford county, Va.—Whilst the amount of wheat sowed the past fall far exceeds that of the previous year, it is far short of what it was before the war.

Putnam county, W. Va.—The culture of wheat, after having been nearly suspended for about two years on account of the ravages of the midge, was partially resumed two years ago and has now nearly attained its former acreage. Late maturing varieties are still nearly destroyed, but some early varieties, as the Tappahannock or Boughton, and especially the *midge-proof*, are now pretty generally sown, and have proved tolerably remunerative. Late varieties, in the absence of the midge, are much more prolific than the early wheats, but in the presence of that pest the former are all worthless to us. Will the midge ever disappear from a district while the farmers continue to cultivate those varieties of wheat upon which the grub feeds?

Stanley county, N. C.—Our farmers had become convinced that early-sown grain would tiller more, ripen earlier, be less exposed to rust, and yield a greater average at harvest time; and they had shaped their work accordingly. But the early-sown crops were so much injured by the depredations of the grasshoppers during our late falls, that late sowing has again become the order of the day, with the result this year, owing probably to the very cold weather in the early part of December, of a

very backward coming up of the seed. Whole fields this day do not yet show a spear above the ground. More pains than usual have been taken in applying manures and getting the ground in order.

Stokes county, N. C.—Wheat has been almost a failure for three years; consequently there is not much sown.

Abbeville district, S. C.—In this county, I may say in the State, wheat is distinguished by the two classes of early and late wheat, and generally the time for sowing does not vary more than two or three weeks. The month of November is the time for seeding. The late wheat is sowed the early part of the month, and early the latter part. Successful wheat-growers, do not think that a full crop, of either variety, need be expected from seeding later than November. We would prefer to sow in the month of October, and would always do it, but for the fly, which sometimes injures it when sown in that month.

Union county, N. C.—Our farmers were late sowing wheat last fall, many of them not finishing until late in December; consequently much of it has not made its appearance yet. We hope that it will come the first warm spell in January. Farmers report that they have gathered fine crops after the seed had lain in the ground for weeks without sprouting.

Newton county, Ga.—Farmers are late in getting in their wheat, which is unusually backward. The ground has been more thoroughly prepared than usual.

Dawson county, Ga.—Our winter wheat was never put in later or looked much worse as a general thing. Our mode of culture here has been, and is now with exceptions, to sow wheat after a crop of corn, and put in with a common bull-tongue plough, and bestow no other labor except to harvest it. Myself and a few others have turned our stubble land, both oat and clover stubble, with two-horse ploughs, and harrowed in our wheat and then run a roller over it. The wheat put in in this manner looks more regular and more promising.

Robertson county, Tenn.—A considerable portion of the wheat crop, say one-third, was sown later than usual, and about one-half of the late sowing has not come up yet on account of the early winter; that which has come up looks well. The soil was prepared rather better than usual.

Fayette county, Ky.—More than ordinary care was bestowed upon the preparation of the soil for the fall-sown crops. The result so far is an unusually fine appearance. We now have a cheering prospect for the next harvest.

Chardin county, Mo.—We have at least 100 per cent. more wheat sown this season than in any previous year, and the prospect for a good crop was never more flattering at this stage of growth. Missouri is a wheat State, but owing to want of transportation this crop has not been so much a staple as tobacco, hemp, &c. The wheat crop of 1868 was good, reaching a high average per acre. Oats were fine; corn, fair; tobacco, not half a crop and of inferior quality, much of it being badly frosted.

Calloway county, Mo.—A drought injured the corn and potatoes very much, but fall rains made plenty of grass, and brought up the fall-sown wheat and rye, and they now look very well. Fully twice the usual amount of wheat was sown last fall.

Morris county, Kansas.—Last year we had a very poor prospect for wheat, and this year we have a remarkably good prospect.

Atchison county, Kansas.—There is a large breadth of winter wheat sown, and it looked quite promising to the 15th November; from that to the 20th December, the ground was covered with a very damp, heavy snow to the depth of 15 inches and quite cold most of that time. About

the 19th and 20th the snow went off in a hurry; it then turned cold and froze severely and so continued till the 26th, which we fear will be bad for the wheat. Wheat was sown here all the way from the 15th September to the 10th of November.

St. Clair county, Ill.—Owing to the rains sowing was not commenced until the 1st of October, but was finished during that month. Wheat was never put in better. We had a fine Indian summer and wheat looks as well as usual. I believe the flooding rains had a very good effect, as they caused all the wheat and weed seeds to sprout and grow, whereby they would be destroyed, and also a great many insect broods.

Hancock county, Ill.—Winter grain was largely sown: seasonable rains and weather more than usually propitious, not subjected to freezing till snow covered the ground, leaving the crop in excellent condition.

Portage county, Wis.—There being no snow on the ground to protect winter grain, it is generally thought the cold of the past month (15° below zero) has injured it. Nearly the same circumstances existed last year, and when the snow went off in the spring the crops looked green and fine, but as soon as the warm sun struck it so as to be felt the leaves withered, showing to my mind that the cold of December killed it. Grain smothered by too heavy snow shows it at once by a bleached appearance.

Clinton county, Mich.—Land for wheat was last fall in better than average condition. Drought aided cultivation in killing weeds, and farmers felt the necessity of making land fine and in good condition, else wheat would not germinate. Wheat was sown in good season, but for lack of moisture grew very slowly and is not now more than one quarter as large as it ought to be. The winter thus far has been quite favorable.

Ottawa county, Mich.—Winter wheat is not so forward as usual at the commencement of winter, owing to the cold fall, but on the other hand there has not been a surplus of water to kill the wheat in spots as sometimes occurs, so that the prospect thus far is very good for a wet season. No loss as yet has occurred by freezing out. There is a manifest improvement in the preparation of the soil for wheat by thorough culture.

TAPPAHANNOCK WHEAT.

Auglaize county, Ohio.—I had from the Department three years ago a quart of Tappahannock wheat which had increased in 1868 to seven bushels in two seasons. It is the finest and earliest variety we have ever had in this section. The farmer who sowed it thinks he will have over 100 bushels for sale next season. He was offered $4 per bushel for it last fall.

Georgetown, S. C.—The Tappahannock and Mediterranean wheat sent me last year failed entirely from rust.

SWEDISH OATS.

Brown county, Ohio.—The pound of white Swedish oats furnished me two years ago last spring by the Department produced seven bushels, weighing 45 pounds to the bushel. After two years of cultivation I find the quality equal to the original, weighing 45 pounds and yielding largely to the acre. The straw is very strong, standing up well against storms and wet, and the variety seems admirably adapted to this climate.

COTTON AND SUGAR.

Morehouse parish, Louisiana.—You will notice a marked change in my estimate of the cotton crop which is attributable to the fact that the yield of lint to a given quantity of seed cotton has been most remarkable, and

to the further fact that the general yield of seed cotton has been greater than was anticipated, considering the experience of the past two years. The crop was planted early, the long dry season was well adapted to the making of the crop, while the worm made its appearance much later than last year; consequently our crop is a fine one, and has been made at less expense than ever before, and will greatly relieve our impoverished people.

Columbia county, Florida.—The cotton (sea island) crop of this portion of the State was very promising up to the month of July last, when the cotton caterpillar made its appearance, and by its ravages reduced the crop fully one-third. The average yield, so far as I can learn, is not over 400 pounds of seed cotton to the acre.

The sugar crop from cane has been very fair, the average yield being about 1,000 pounds to the acre. Some lands in this county have the past year produced 2,500 pounds of sugar, besides about 150 gallons of sirup, to the acre.

Arkansas county, Arkansas.—The cotton crop has made a better return than I expected in November, but the best that I can hear of is three and one-half bales to the hand. My own crop will be about 200 pounds lint to the acre, but I have some men cropping with me who planted sandy land that have made 450 pounds per acre. I have come to the conclusion that it will make no difference how large a crop will be made, but three and one-half to four bales to the hand will be picked. My cotton book of 1860 shows that a negro man averaged 1,000 pounds per week for 20 weeks; some weeks he lost two days from rain. This is 15 bales; now it takes five men to pick that much cotton.

Saint James parish, Louisiana.—The sugar planters are nearly all done making sugar, except a few who will lose some cane for the want of wood. The cane has yielded very well, and the planters are all well satisfied with the result. I am glad to say that I was not mistaken in the information I sent to the Department. I have from authentic sources that cane has yielded three hogsheads of sugar to the acre, but the average in this parish is about one hogshead and a half. The freedmen have worked well and have done better than I had expected. The fact is that the freedmen are well treated and are punctually paid for their labor; they all seem well satisfied and willing to work. There will be a great demand for labor the coming season, which will cause wages to be higher than last year.

Hale county, Alabama.—Contracts with freedmen the same as last year, viz: one-fourth of the crop, the owner of the land furnishing everything. The estimated yield and profits are as follows, for two hands and one mule—the average cultivation, 30 acres:

Eighteen acres cotton, estimated yield 6 bales (500 lbs.) at 20 cents net		$600 00
Twelve acres corn, estimated yield 24 bushels, at 75 cents		180 00
		780 00
Expenses—use of mule	$25 00	
Food for mule	90 00	
Blacksmithing	10 00	
Rations for hands	80 00	
Wages of two hands, one-fourth of $780	195 00	
		400 00
Net profits		380 00

Hands frequently make four bales. The above is about an average.

SWEET POTATOES, GRAPES, TEA PLANT, ETC., IN FLORIDA.

The crop of sweet potatoes has been extraordinarily good, some farmers making as much as 600 bushels to the acre. I deem the average crop to have been about 400 bushels to the acre.

The cultivation of the orange and grape is becoming more extensive, though I fear this county is rather too far north for the former. The orange trees, throughout the whole of the northern portion of Florida, were seriously injured by the severe cold of December 25, when the mercury fell at this place to 12° above zero, and many of our small lakes were frozen nearly, if not quite over, with thin ice. It is doubtful if anything like a crop will be returned this year. Most of the small trees of from one to two years old are killed to the ground.

The cultivation of the grape has proved very successful in this vicinity. The Scuppernong yields probably the best. Dr. T. E. Griffin, near this place, from six vines, and only one-half the crop gathered, manufactured 45 gallons of superior wine with the aid of a hand-press.

I enclose a specimen of tea from plants sent me by the Department in 1860, which are growing finely. I have propagated some from cuttings and also from the seed. The plants are now seeding. The leaves when cured are very fragrant. The plant is not affected by cold.

I also send a small cutting of the bark from one of several cork trees I raised from acorns procured from Portugal, and sent me by the Department in 1860. One of the trees is about 18 inches in circumference, and 16 to 18 feet high. They stand the climate well.

KEEPING SWEET POTATOES.

Fayette county, Tenn.—The sweet potato is one of the crops upon sandy loamy soils that yield incredibly where attention is paid them, and return a fine profit, selling usually at the beginning of the year at from $1 to $1 50 per bushel, and from $2 to $5 at bedding season. Great difficulty is encountered in keeping them, as they must be kept at uniform temperature, and are very sensitive to frost. The most successful mode for keeping them is the old pioneer "*dirt bank*" or hill, covered with common boards to protect from weather and rain, after this manner: Elevate the bed upon which the potatoes are to be placed about six inches above the surrounding level; upon this put about two inches of dry hay, then place three boards upright so as to form a triangular tube, and around this pour the roots selected, excluding all that have been injured in digging or prematurely rotted. After this requisite quantity is placed on the hill, cover over with dry straw about two inches and cover with dirt about six inches, leaving the triangular tube open for the heated air from the usual sweating process to escape; and when this sweating has ceased, and when the weather becomes cool or cold, stop up the tube with hay to regulate the temperature, keeping them cool and dry; and when cold freezing weather begins put on an additional layer of earth, at least 12 inches, and more hay on the tube. Having placed a cover over the hill, inclined to the north as low down as the hill will permit, open the hill only on pleasant days on the south side, and replace as soon as practicable the straw or hay and earth.

MAST.

Morehouse parish, La.—The mast this year is the heaviest known for years in this section. The ground in the forests is covered with acorns, which will serve as a substitute for thousands of bushels of corn which would otherwise have been required in the fattening of hogs.

Clark county, Ark.—There is an abundance of acorns this year, and the hogs will fatten in the woods.

CROPS.

Jefferson county, W. Va.—Our Jefferson county, West Virgina, correspondent supplies the following figures for his county for the year 1868:

Name of product.	Number of acres to each.	Total yield.	Average per acre.	Average price.	Total value of products.
Indian corn, bushels	15,880	198,500	12.5	$1 00	$198,500 00
Wheat, bushels	17,505	192,555	11	2 00	385,110 00
Rye, bushels	426	4,686	11	1 40	6,560 40
Oats, bushels	2,072	48,277.6	23.3	65	31,380 44
Buckwheat, bushels	40	480	12	1 25	600 00
Beans, bushels	6	90	15	2 50	225 00
Potatoes, Irish, bushels	135	9,450	70	1 50	14,175 00
Potatoes, sweet, bushels	0.2	10	50	1 50	15 00
Turnips, bushels	10	1,500	150	50	2,750 00
Sorghum, gallons	70	3,150	45	90	2,835 00
Wine, gallons	3.3	165	50	2 00	330 00
Leaf tobacco, pounds	3.5	840	240	10	84 00
Hay, tons	6,190	9,285	1.5	16 00	148,560 00
Total	42,341				789,124 84

By reference to the monthly report of your Department for January, 1868, it will be seen that the total acreage is slightly less than last year, a decrease in the average yield of most of the principal crops, and a decrease in the total value of a quarter of a million dollars.

DISEASES AMONG STOCK.

Greenville county, S. C.—"Joe," a fine bull, one year old, was taken alarmingly ill last week, manifesting extreme pain, accompanied with frothing at the mouth, weakness and stupidity and general torpor and inaction, with cold extremities. He was with difficulty driven under shelter, where he laid at the point of death for four days. He was given one dose of Epsom salts and ginger, followed in the evening by a dose of warm sirup and water, with four tablespoonsfull of ashes. When I heard of Professor Gamgee's prescription, "a pound of Epsom salts, an ounce of aloes in four ounces of sulphur, and two ounces of ginger, the whole mixed in water and poured down the throat of the sick animal," another dose was given of salts, ginger, and sulphur, which was repeated the third day, and on the fourth day "Joe" got upon his legs again and chewing the cud. It had been noticed that the older cattle this year have not eaten the corn stalks in the bottoms as usual, but that "Joe" had been looking very full. We had a very wet season last year, and an unusual amount of smutty corn was produced.

Johnson county, Iowa.—A new sort of cattle disease has broken out in this county. It is said to be dissimilar to the cattle disease so generally prevalent throughout the country, judging from the symptoms. Some think it caused by something the animals have eaten, while others think it a species of cholera. I do not think it will become very prevalent.

Beaver county, Pa.—Sheep are looking badly, and a great number must die before spring. But few farmers are raising lambs. Cattle are increasing in numbers; horses looking well, and more colts being raised than in former years.

Holton, Kansas.—The "black leg," an inflammatory lameness speedily ending in death, has killed some young cattle here. No remedy known.

Morehouse parish, La.—The "black tongue" has made its appearance among the deer in the swamps and is killing numbers of them, and it is feared that the disease may extend to the cattle.

CATTLE DISEASES.

The Connecticut Board of Agriculture, at a meeting at Bridgeport, January 12, 1869, adopted the following resolutions:

Resolved, That the investigation of the Texan cattle disease should be followed up in Texas in order to determine with precision the cause of the malady, and if any means can be adopted for its prevention.

Resolved, That the Connecticut Board of Agriculture learn with alarm and regret of the wide-spread prevalence of contagious *pleuro-pneumonia* in cattle, and respectfully urge on Congress the necessity for the appointment of a commission of investigation and the early adoption of measures for eradicating the disease.

PORK-PACKING.

The following figures represent the amount of pork-packing in the States mentioned, (with the exception of about half a million hogs in Chicago not included in the Illinois statement,) up to January, as gathered from the Cincinnati Price Current. This is a less number than was packed last year at the same date, and fears are expressed that the total quantity may not equal the result of last year's packing. Adding the figures for Chicago and other points not named, it is certain that at least two millions of hogs have been packed in the States mentioned. The second column gives the totals of the entire packing of last season in the same States.

	Packed to date.	Total last season.
Illinois	139,698	237,109
Indiana	202,655	214,830
Kentucky	176,000	153,280
Ohio	412,367	475,684
Iowa	88,172	137,441
Wisconsin	108,000	163,495
Missouri	315,379	326,211
Total	1,442,271	1,708,035

Up to February 1, (as the report goes to press,) the total packing in 152 places, including Chicago, is reported at 2,122,693 hogs, with a probable increase to 2,400,000, against 2,781,180 last season. Should the hogs average the same weight as those of last year, which is somewhat doubtful, this would indicate a falling off of 14 per cent.

Let us see how this tallies with the estimate of the number of stock hogs on hand last autumn in the monthly report of September last. It was as follows:

STOCK HOGS.—A considerable reduction is noted in the number of fattening hogs, and also in their condition as to size and weight, as compared with the average of former years. This is especially true in the southern States, Louisiana alone showing increased numbers; of the western States, only Missouri, Nebraska, Kansas, and Minnesota report above or up to an average stock. Indiana reports 9 tenths; Illinois, 8.5; Ohio, 8.9; Wisconsin, 9.5; Iowa, 9.3; Michigan, 9.7; Kentucky, 9; West Virginia, 9.1; the New England States, 9.5; and the Middle States, 9.4.

Thus, Illinois, the center of the hog market, showed a reduction of 15 per cent., and other corresponding States nearly as much. Thus is the

prediction of the Department figures verified, and those who relied upon its information have been saved from loss in their contracts and purchases. The above is the only statement made relative to hogs for fattening, misapprehensions of newspaper writers to the contrary notwithstanding.

SUGAR AND MOLASSES TRADE OF THE UNITED STATES.

The following figures, taken from tables made up for the New York Shipping and Commercial List, show the total receipts of foreign and domestic cane sugar, unrefined, at the ports named, for the year ending December 31, 1868, as compared with those of the preceding year:

	1868.	1867.
	*Tons.**	*Tons.**
Received at New York	259,073	203,642
Received at Boston	62,237	40,886
Received at Philadelphia	66,121	50,658
Received at Baltimore	53,458	35,241
Received at New Orleans	19,706	16,094
Received at other ports	10,380	9,280
Total receipts of foreign	470,975	355,801
Stock on hand at beginning of the year	25,746	54,244
Total supply	496,721	410,045
Shipments to Canada, inland	8,246	6,231
	488,475	403,814
Stock on hand at end of this year	41,942	25,746
Total consumption of foreign sugar	446,533	378,068
Estimated crop of Louisiana and Texas	23,000	22,500
Total consumption of foreign and domestic sugar†	469,533	400,568

* 2,240 pounds. †Not including Pacific States and Territories.

The receipts at the port of New York were derived from the following sources:

	1868.	1867.
	Tons.	*Tons.*
Cuba	262,952	173,942
Porto Rico	20,140	16,481
Demerara	11,594	1,873
Barbadoes	2,232	2,574
St. Croix	2,254	998
Martinique and Guadalupe	1,528	985
British West Indies	427	515
Dutch and other West Indies	319	246
Brazil	3,778	1,638
Manilla	8,886	3,129
Java and China	218	761
European and other foreign ports	211	276
Total receipts of foreign, direct	258,539	203,418
Receipts of milado	534	224
Texas	.....	59
Louisiana	823	296
Other coastwise ports	1,113	2,417
Total receipts	261,009	206,414
Stock on hand at beginning of the year	13,006	31,926
Total supply	274,015	238,340
Exports, foreign	7,291	4,897
	266,724	233,443
Stock on hand at end of the year	26,169	13,006
Taken from this port for consumption	240,555	220,437

The following table will show the average prices of the different varieties of sugar named at the port of New York for the past four years:

	1868.	1867.	1866.	1865.
New Orleans refining grades	$10 62	$10 06	$10 75	$18 75
Cuba, fair to good refining grades	11 32	11 11	.....	.....
Porto Rico refining grades	11 41	11 11	10 67	14 98
Havana, white	14 77	14 72	15 15	18 36
Havana, brown, Nos. 7 and 9	11 07	10 70	10 56	13 33
Manila	11 06	10 65	10 31	12 73
Brazil	11 35	10 67	10 71	12 98
Melado	7 87	7 40	7 13	9 22

The total consumption of sugars of all descriptions throughout the United States is given as follows:

	Tons of 2,240 lbs.
Cane sugar consumed in the United States on the Atlantic	469,533
Cane sugar consumed in the Pacific States and Territories	18,500
Sugar made from molasses	32,000
Maple sugar	23,000
	543,033
Total consumption in 1867	467,268
Increase in 1868, (about 16¼ per cent.)	75,765

The sugar product of the world is estimated at 2,299,600 tons, of which Cuba produced nearly one-third. The consumption for the same period was 2,007,700 tons, of which Great Britain and her colonies consumed about 680,700 tons, and the United States 467,268 tons.

MOLASSES FROM CANE.

	1868.	1867.
	Gallons.	*Gallons.*
Total receipts of foreign	55,502,989	47,446,505
Stock on hand, beginning of year	2,396,200	2,254,340
Total supply	57,899,189	49,700,845
Exports to Canada	1,819,220	528,180
	56,079,969	49,172,665
Stock on hand at close of year	3,492,000	2,396,000
Total consumption of foreign	52,587,969	46,776,465
Crop of Louisiana, Texas, &c	3,370,000	3,000,000
Total consumption*	55,957,969	49,776,465

* Pacific States and Territories not included.

The total annual consumption in the United States, with the proportion of foreign since 1850, is given as follows in gallons:

Year.	Total consumption.	Foreign.	Year.	Total consumption.	Foreign.
1868	55,957,969	52,587,969	1859	54,260,970	28,293,210
1867	49,776,465	46,776,465	1858	45,169,164	24,795,374
1866	45,140,110	43,840,110	1857	28,508,784	23,266,404
1865	35,185,038	34,335,038	1856	39,608,878	23,014,878
1864	32,410,325	28,582,325	1855	47,266,085	23,533,423
1863	37,569,088	26,569,088	1854	56,493,019	24,437,019
1862	62,668,400	25,650,400	1853	55,536,821	28,576,821
1861	40,191,556	20,383,556	1852	48,257,511	29,417,511
1860	47,318,877	28,724,205	1851	43,948,018	33,238,278

In addition to the consumption of cane molasses, it is estimated that from 23,000,000 to 25,000,000 gallons of sugar-house sirups and about the same quantity of sorghum and maple sirups, making the total consumption of all kinds of molasses and sirups the past year about 100,000,000 gallons.

TRADE OF NEW YORK.

The receipts of the principal agricultural products during three years at New York were as follows:

	1866.	1867.	1868.
Wheat flour ..... barrels..	2,720,835	2,602,892	2,860,726
Corn meal ..... barrels..	263,833	228,417	285,683
Wheat ..... bushels..	5,729,912	9,640,131	12,988,147
Rye ..... bushels..	1,314,943	765,376	773,351
Oats ..... bushels..	8,811,064	8,030,807	10,221,590
Barley ..... bushels..	5,695,485	2,669,724	2,853,043
Peas ..... bushels..	552,730	668,457	378,423
Corn ..... bushels..	22,189,532	14,979,277	19,053,615
Cotton ..... bales..	671,794	658,911	662,994
Pork ..... packages..	129,880	160,014	99,985
Beef ..... barrels..	70,855	104,633	91,442
Cut meats ..... packages..	100,629	105,134	79,615
Butter ..... packages..	493,061	551,791	502,906
Cheese ..... packages..	742,441	1,302,132	1,136,584
Lard ..... tierces and barrels..	96,750	155,025	102,732
Lard ..... kegs..	8,817	13,763	15,093

The exports during the same period were as follows:

	1866.	1867.	1868.
Wheat flour ..... barrels..	900,084	867,122	1,020,522
Rye flour ..... barrels..	7,552	11,754	7,459
Corn meal ..... barrels..	149,773	136,653	184,117
Wheat ..... bushels..	522,669	4,450,963	5,775,109
Rye ..... bushels..	248,646	454,096	153,093
Oats ..... bushels..	1,190,583	120,195	94,340
Barley ..... bushels..	1,329,842	886,863	.....
Peas ..... bushels..	282,992	684,853	189,167
Corn ..... bushels..	11,679,394	7,981,748	6,002,825
Cotton ..... bales..	381,092	436,800	326,941
Hay ..... bales..	33,503	24,013	38,557
Hops ..... bales..	3,111	3,451	18,317
Pork ..... barrels..	92,352	84,221	82,628
Beef ..... barrels..	28,149	17,235	26,430
Beef ..... tierces..	28,749	38,603	50,004
Cut meats ..... pounds..	29,478,691	33,034,800	36,336,799
Butter ..... pounds..	1,985,423	4,479,456	987,362
Cheese ..... pounds..	38,379,069	53,429,518	41,233,806
Lard ..... pounds..	25,283,303	51,728,801	44,490,487
Rice ..... tierces..	81	133	253
Rice ..... barrels..	9,379	13,192	19,352
Tallow ..... pounds..	15,511,296	18,285,429	13,282,433
Tobacco, crude ..... packages..	104,975	153,601	86,737
Tobacco, manufactured ..... pounds..	5,619,926	7,027,353	7,380,413

TRADE OF CHICAGO.

	Receipts.		Shipments.	
	1868.	1867.	1868.	1867.
Flour, barrels	2,092,553	1,814,286	2,239,497	1,859,995
Wheat, bushels	13,540,250	13,090,868	10,367,880	10,360,458
Corn, bushels	25,396,523	23,018,827	23,771,330	20,213,790
Oats, bushels	14,449,476	10,988,617	13,019,757	9,732,146
Rye, bushels	1,367,461	1,386,204	1,134,571	1,008,623
Barley, bushels	1,510,719	2,246,446	788,760	1,680,950
Seed, pounds	26,841,510	25,416,123	14,978,250	11,263,227
Broom-corn, pounds	5,238,916	4,203,161	4,483,148	3,693,605
Cured meats, pounds	18,229,514	11,607,264	74,552,705	80,780,853
Beef, barrels	115	1,004	50,707	84,835
Pork, barrels	47,510	71,331	160,422	168,783
Lard, pounds	10,053,521	9,837,362	25,022,063	34,514,305
Tallow, pounds	1,934,688	2,866,471	4,355,242	7,519,267
Butter, pounds	4,636,338	2,813,699	3,011,646	2,160,367
Dressed hogs, No	370,840	297,816	198,409	113,697
Live hogs, No	1,688,189	1,672,494	999,324	741,463
Cattle, No	323,850	326,826	206,357	202,058
Hides, pounds	27,776,982	22,983,017	21,985,899	20,721,963
High wines, barrels	28,742	41,660	36,117	50,684
Wool, pounds	11,962,525	9,523,707	11,001,836	10,546,213
Lumber, feet	992,566,000	861,912,000	562,960,000	522,113,000
Shingles, No	536,936,000	431,261,000	456,306,000	401,815,000
Lath, No	147,835,000	143,847,000	98,433,000	102,609,000
Salt, barrels	683,622	441,734	473,954	461,979

PRICES OF PRODUCE.

The following comparative prices of certain agricultural products on the first of January for twelve years past in New York city are from the record made by the Journal of Commerce:

	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.
Wheat flour, State, bbl	$4 25	$4 30	$4 30	$5 35	$5 50	$6 20	$6 70	$9 90	$8 00	$10 25	$9 50	$6 80
Wheat flour, western, bbl	4 25	4 60	5 29	5 30	5 50	6 25	6 90	10 45	8 90	11 35	9 55	6 60
Rye flour, bbl	4 00	3 75	4 00	4 00	3 87½	4 50	6 00	.....	5 75	7 00	8 75	.....
Corn-meal, Brandywine, bbl	3 25	3 40	3 90	3 15	3 00	4 50	6 00	8 80	4 60	5 25	6 50	5 50
Wheat, Michigan, bush	1 20	1 25	1 50	1 45	1 50	1 47	1 59	2 65	2 60	3 20	3 20	2 12½
Wheat, California, bush	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 00	3 05	2 15
Wheat, No. 1 spring, bush	95	83¾	1 18	1 18	1 30	1 30	1 46	2 29	1 87½	.....	2 45	1 76
Rye, western, bush	1 10	78	92	75	83	85	1 27	1 73	98	1 23	1 80	1 50
Oats, State, bush	43	53	46½	37	42	70	92	.....	62	69	87	78
Oats, western, bush	46	55	45½	38	42	69	93	1 09	62	64	84	76
Corn, old wst'n, mix'd bush	65	78	90	72	64	78	1 30	1 87	95	1 12	1 41	1 10
Corn, new southern, bush	62	75	88	72½	68	.....	.....	2 08	98	1 15	1 40	1 05
Cotton, middling upland, lb	8⅞	12	11	12½	35½	67½	81	1 19	52	35	16	26
Cotton, middl'g, Orleans, lb	9	12⅛	11⅜	12⅜	36	67½	81	.....	53	36	16½	26¼
Hay, shipping, 100 lb	65	80	1 00	90	77½	80	1 40	1 50	80	1 28	1 20	90
Hemp, Manilla, lb	7	6½	6¼	5⅝	7⅜	8¾	12¾	18½	12	12	10⅜	11¼
Hops, lb	10	15	16	25	20	22	30	50	60	60	60	20
Pork, mess, bbl	15 40	17 00	16 37½	16 00	12 00	14 50	20 00	41 00	29 12	19 12	21 00	28 00
Pork, prime, bbl	13 00	13 00	11 75	10 50	8 50	12 00	15 00	35 50	23 00	17 00	18 00	22 00
Beef, plain western, bbl	12 50	9 50	9 50	9 00	11 00	13 00	12 00	21 50	18 00	16 00	16 00	14 00
Beef, prime mess, tierce	10 00	9 00	9 00	6 00	5 50	20 00	23 00	.....	.....	.....	32 00	28 00
Beef hams, extra, bbl	15 50	15 00	14 50	14 00	14 50	15 50	18 00	26 50	33 00	35 00	32 75	32 00
Hams, pickled, lb	8⅝	9½	9¼	8	6	7	10	20	16	12½	12	15½
Shoulders, pickled, lb	6½	6½	6½	5½	4⅝	5⅜	8	18	13	10	8½	11
Lard, western, lb	9¼	11⅛	10½	10⅝	8⅝	9¼	12	24	19¾	13	12¾	17⅛
Butter, western, lb	16	18	16	14	15	20	26	45	35	32	45	40
Butter, prime, State, lb	20	20	20	18	19	23	29	60	40	43	.....	48
Cheese, fine factory, lb	8	9	11	10	7	12	16	24	18¾	17	15	19¼
Rice, good, 100 lbs	3 25	3 50	4 20	4 00	7 00	.....	.....	.....	*8½	19	8¾	9¼
Seed, clover, lb	9½	9½	8½	8¾	7½	10½	12	26	13	13	12⅝	13
Sugar, Cuba raw, lb	7	7	7⅜	6½	8½	9⅜	12	19	11¾	10	11½	11½
Sugar, refined hards, lb	10⅜	9⅝	10	5½	10⅝	13½	16⅞	28½	18½	15	16¾	15⅛
Tallow, lb	10	10¾	10¼	9⅛	9⅜	10¼	12	17⅝	13⅝	11⅛	10⅜	11⅝
Wool, Ohio fleece, lb	27	42	40	30	50	62	80	95	70	60	48	57

*Gold. †Currency.

LIVE STOCK RECEIPTS AT NEW YORK.

	1868.	1867.
Beeves	293,101	289,831
Milch cows	5,382	3,334
Veal calves	82,935	69,542
Sheep and lambs	1,400,623	1,162,879
Swine	976,511	1,079,343
Total	2,758,552	2,603,777

The cattle were supplied from the following sources, Illinois sending about 56 per cent. of the whole number:

Source of supply.	Number.	Source of supply.	Number.
Illinois	165,668	Iowa	1,950
New York	28,757	Connecticut	2,705
Ohio	27,308	Michigan	1,506
Kentucky	19,375	West Virginia	1,346
Indiana	14,650	Kansas	818
Texas and Cherokee nation	11,300	Nebraska	266
Missouri	9,781	Massachusetts	249
Pennsylvania	3,455	New Jersey	200
Canada	3,068		

The average price of beeves for the year was $15\frac{3}{4}$ cents per pound.

LIVE STOCK AT CHICAGO.

We are indebted to George T. Williams, assistant secretary, for the following reports of receipts and shipments of live stock at Union Stock yards, Chicago, Illinois, for the year ending December 31, 1868:

RECEIPTS.

Source of supply.	Cattle.	Hogs.	Sheep.	Horses.	Mules.
Illinois Central railroad	60,902	354,946	65,014	200	2
Chicago and Rock Island railroad	35,616	218,029	16,324	20	.....
Michigan Central railroad	2,215	15,274	6,942	83	74
Pittsburg, Fort Wayne, and Chicago railroad	444	5,869	2,684	429	141
Columbus, Chicago, and Indiana Central railroad	1,392	3,857	5,436	16	.....
Chicago and Alton railroad	64,952	200,145	41,324	96	17
Chicago, Burlington, and Quincy railroad	108,901	574,468	69,497	293	.....
Chicago and Northwestern railroad	46,758	302,140	42,087	71	.....
Michigan Southern railroad	796	30,444	19,498	418	.....
Driven into yards	2,548	1,616	2,069	.....	58
Total	324,524	1,706,782	270,875	1,626	292

SHIPMENTS.

Illinois Central railroad	2,951	1,029	1,715	52	.....
Chicago and Rock Island railroad	2,521	332	421	108	127
Michigan Central railroad	51,840	167,299	47,428	54	.....
Pittsburg, Fort Wayne, and Chicago railroad	82,331	462,352	15,711	20	.....
Columbus, Chicago, and Indiana Central railroad	9,842	36,584	1,557	5	.....
Chicago and Alton railroad	2,727	1,110	.....	50	.....
Chicago, Burlington, and Quincy railroad	1,092	.....	3,092	40	38
Chicago and Northwestern railroad	4,151	1,711	2,310	1,355	121
Michigan Southern railroad	58,529	349,912	9,539	153	.....
Total	215,987	1,020,329	81,773	1,837	286

LIVE STOCK OF ST. LOUIS.

The following table shows the receipts and shipments of live stock a St. Louis for the year ending December 31, 1868:

RECEIPTS.		SHIPMENTS.	
Cattle	148,403	Cattle	40 110
Sheep	110,269	Sheep	9 2
Hogs	304,669	Hogs	

LIVE STOCK RECEIPTS AT BOSTON.

	1868.	1867.	1866.
Cattle	102,421	103,706	118,083
Sheep	482,874	414,813	400,546
Swine	131,773	111,448	128,498

SCUPPERNONG WINE.

The following is the result of an analysis of a sample of Scuppernong wine received at the Department:

Suspended matters	0.13	
Alcohol, (by weight)	10.23	
Alcohol, (by volume)	12.50	
Fruit sugar, (*i. e.*, glucose)	2.5	5.40
Cane sugar	2.9	
Extract	8.02	

FORESTS.

Hon. J. M. Edmunds, late Commissioner of the General Land Office, communicates the following paper upon a subject meriting more attention than it has yet received:

THE USES OF FORESTS.

The progress of population and settlement, not only on this, but on the other continents, has demonstrated the fact that that country only is desirable and practicable as the habitation of civilized man which is clothed with, or is in the vicinity of forests.

Besides furnishing the best and most economical material for the convenience and many of the necessities of civilized society, forests fertilize and moisten the earth, soften and modify the climate, and protect men, animals, and vegetation from the blighting effects of the unbroken rays of the sun, and dry and sweeping winds, which everywhere prevail on extended treeless plains, deserts, or wastes. So marked and universal are these effects, that even the casual observer may trace with accuracy, by the absence or abundance of animal and vegetable life, the line between the rainless regions of the earth and those which are enriched and fertilized by the outpouring of the rain clouds, which in our country, except upon the mountain plateau, everywhere abound.

To the pioneer, forests are a necessity. They supply building material, tools, carriages, fuel—in fact are the reliance of the frontier settlers for almost all domestic purposes, nor can a substitute be found which is within the means and accessible to the advance settlements. It is not until the facilities of economical transit, and the capital and skill of the miner and manufacturer have occupied the country, that the various substitutes for timber, for multifarious domestic uses, can be obtained even by the more opulent, and for the indigent, structures and implements of timber must, under the most favorable circumstances, continue to be the main reliance.

It is true, that for buildings, vessels, bridges, and many other structures, and for machinery, tools and utensils of almost every description, stone, brick, iron, and other expensive materials, have been substituted for timber in the older and wealthier communities; but it is not true that these inventions, numerous and important as they are or may be, have diminished or will lessen the consumption of timber. It must be borne in mind, in this connection, that new uses have been found for timber as well as for its more durable and expensive substitutes; that, while in the older sections of the country its use has been discontinued for many purposes, it has been applied to new and varied uses by a large and rapidly increasing population, and that more, much more, is now annually consumed than at any former period since the settlement of this continent.

If, then, forests are essential for domestic uses, and their consumption annually increasing in the ratio of population; if they are essential for the protection of men, animals, grains, grasses, and fruits, as none will deny, but all admit, what should be done to stay their waste; and what should be the policy of the nation and people relative to their growth and preservation?

THEIR WASTE.

Till within a short period the advancing column of population has been composed of those who have been forced to contend with the densely timbered region east of the Mississippi, carrying with them habits and tastes unsuited to the vast treeless plains now facing our frontier settlements.

Upon the first settlement of the continent communities were weak and scattered, the open prairies of the west were unknown and inaccessible, timber for every purpose was abundant and free, forests were the great hindrance to progress and cultivation, the immense growth on the Atlantic and western slope of the Alleghanies was disproportioned to the wants of the population, facilities for its transport to the seaboard did not exist, and its destruction was an apparent necessity. The inconveniences of a treeless waste were unknown and the consequent prospective value of the forests unthought of and unappreciated. For generations the advance settlers continued the war of destruction upon the most extended and valuable forest on the globe. And thus it is, that the whole people of the country, after having been taught that they could not live with the forests, have now to learn that they cannot live and prosper without them.

While the war upon the timber reserve was conducted with the greatest vigor, the population was sparse and poor, yet, after a century and a half of toil it has worked entirely through this almost impenetrable wilderness, leaving but scattered fragments behind, and now, confronting a treeless waste, is forced to draw its supplies of an essential commodity, which requires a century for reproduction, from a diminished and constantly and rapidly diminishing supply, and this for a population tenfold greater than that with which our career as a nation was commenced.

Now, the demand, the need for indispensable forest products, comes from both ways; then it came from neither. Now, there is a vast population to consume; then, there was only a feeble one to destroy. Now, the forest cannot supply the demand for its products without certain prospective exhaustion; then, it did not afford space for settlement and cultivation except through its destruction. Until recently, as new sections of the country were approached by the settlers, new sources of timber supply were opened; now, the country to be peopled is the most destitute, and the advance of settlements but increases the demand upon the already diminished reserve.

Except in the mountain regions, nearly the whole vast surface, from the Atlantic to the Mississippi, has been despoiled of its primeval forest growth by preparation for and subjection to cultivation; and it is only the inarable mountain lands which have been permitted to reproduce the forests of which they have been denuded. Even this is not due to the foresight or prudence of the people, but to the poverty of the soil and the obstacles to cultivation presented by a broken surface. Nowhere are the flat, arable lands been left to reproduce the forest growth. The inviting fertility of the soil, the great length of time required for forest reproduction, the avarice of the people, and a rapidly increasing population, have all combined in the appropriation of the land to such uses as promise immediate returns. And such is the policy still prevailing throughout the whole of the lately timbered region.

The absolute waste is less than formerly, but the waste and consumption are far greater than at any former period, and no considerable effort has anywhere been made to produce, nor is any such effort likely to be made until the people meet with actual destitution, and its legitimate accompaniments of sweeping winds, parching droughts, and impoverished or unproductive fields. Fortunately, some of the more advanced settlers on the great plains have already gained this experience, in time, it is hoped, to impress upon the whole country the importance of immediate precaution and action.

It must not be forgotten that, to this time, our forests have met the demands and destruction only of a gradually rising population—from three to thirty-eight millions—which was, for nearly the whole period, driving deeper into an unbroken primeval supply; whereas the people have now gone through and surrounded this great timber reserve, and already entered on the margin of the vast treeless plains and plateau, with three-fourths of the original store

consumed, the demand accelerated, and the number of consumers rapidly rising from 38,600,000 to 50,000,000. Only a simple mathematical calculation is necessary to determine the proportion which the demand and supply will bear to each other at the close, as compared with the commencement, of this century.

Extend the time for another 50 years, with the added population, and our forests will be exhausted, the demand for their products quadrupled, and the country and people suffering for the protection which forests would afford.

Maine, Michigan, Wisconsin, Minnesota, and Florida are the only States east of the Mississippi which now export any appreciable quantity of timber more than they import, and the reserve in these States is being rapidly cut away to supply the markets from the Atlantic to the Rocky mountains, and from the great lakes to the gulf. But a few years will elapse before the reserve in these exporting States will be reduced to, or below, the demands of their own people.

The mountain and plateau region, occupying the interior of the continent, has only a moderate supply in the valleys and gulches, and upon the foot-hills and lower mountain elevations. No supplies can be drawn from this region for the older States, or even for the great plains, without exausting a reserve which is already below the immediate prospective demand.

In the Pacific States and Territories there is still an adequate supply, but not beyond the early prospective wants of their own people. The States bordering the Mississippi on the west have no surplus, and most of them are at this moment importing to meet the demands of even their sparse population. What sources are they to draw from when the number of their people shall be doubled, and the forests of Michigan, Wisconsin, and Minnesota shall have been exhausted—events which will occur at or about the same time?

Arizona, New Mexico, Colorado, Wyoming, Montana, Idaho, and Dakota have but a meagre supply, not sufficient for a population as dense as now occupies Ohio, Indiana, or Illinois.

Only the newly acquired Territory of Alaska remains to be considered. Very little is known of its timber resources, but in much the largest portion it *is* known that its rigorous climate precludes the growth of valuable forests, and it is not too much to presume that the timber in that Territory will be insufficient to meet the demands of the trade now opening with the great populations of China and Japan.

Considering, then, the present and prospective forest products in this country only in the light of their necessity and economy for domestic purposes, is it not time that waste should cease and production begin? But considering forests and their effects as essential to the protection of men, animals, fruits, and grain, and their value in inducing moisture, protecting the soil and tempering the climate, is it not doubly important that every section of the country should retain if it has them, and if it has them not, should immediately engage in their production, at least to the extent of supplying local use and protection?

THEIR PRESERVATION.

The growth of forests is a slow process and promises appreciable returns only at a distant period, but their preservation may be entered upon at once, not only without cost but with immediate advantage. And this is perhaps all that would be required in the whole of the recently timbered region east of the Mississippi. In all this region wanton destruction should be immediately stopped, and upon all lands not required for cultivation the spontaneous growth of timber should be permitted and reproduction should be encouraged, and if need be commanded by protective statutes. In all the mountain ranges, on abrupt hillsides, along the borders of streams, lakes, and water-ways, in swamps, surrounding every farm, in every village, around every rural cottage, school-house, and church, on the sides of every highway, and railroad, in every cemetery, and on public parks, squares, and grounds, the growth of forest trees should be promoted by their protection, and by planting where they do not spontaneously spring up.

These precautions alone would save the country from the fearful effects of the absence of forests. They would afford protection from destructive winds and shield crops, animals, and soil from the burning and unbroken rays of the sun, and would in a brief period answer a part of the demand for domestic use, and to that extent relieve the scanty remains of the original reserve from the increasing draught of a growing population.

But one additional measure of preservation and growth might with advantage be adopted, and that is to devote a larger area to the planting or reproduction of forests, and take compensation by the superior cultivation of the diminished surface. There are few cultivators who would not doubly gain by the adoption of such a policy.

The construction of railroads and railroad machinery is a heavy draught on the timber reserve, but this is more than compensated by the ready and economical transit which these roads afford for the products of the coal mines from the interior to the centres of population and mechanical industry. And as an additional means of shielding the timber reserve from exhaustion, the most effective will be the construction of railroads from the densely populated regions to the coal deposits and operating them upon a principle which shall so cheapen transit as to induce the substitution of coal as fuel, not only in the manufacturing districts, but in the well-peopled agricultural sections. But on the great western plains and plateau,

now practically destitute of both forests and people, a system of planting and production must be early commenced, or the advance of population into that region will be materially retarded. It must be shown by experiment that forests will grow and that they will afford the protection and induce the moisture essential to agricultural prosperity, and this before settlers will incur the discomforts and hazards incident to their absence. And here we are brought to the consideration of the possibility of clothing these naked plains with life-giving and perpetual forests and the measures which will best and soonest accomplish that desirable and essential end.

THEIR GROWTH.

In all of the States east of the Mississippi it needs but that the hand of destruction shall be stayed, and that a sufficient area shall be set apart on which forests shall be permitted, and their growth protected; for on almost every acre the roots or germs necessary to reproduction still exist, and where they do not, the ground will be readily seeded from the adjacent forests. The fertility of the soil and the moisture of the climate, superadded to these local advantages, would, with the simple permission of man, very soon reclothe the waste fields and places with abundant forests, which would prove a source of wealth and comfort to succeeding generations. Why, then, shall this policy not prevail? Why shall it not be embraced by the people and sanctioned and encouraged by statesmen? Certainly no subject is more worthy the attention of both, and no great measure of public economy can be entered upon with so little inconvenience, without cost, and which promises such incalculable advantages in the future.

THE PLAINS AND PLATEAU.

The great treeless plains within the United States and Territories, and between the Mississippi on the east and the Pacific on the west, present an untimbered surface of 1,400,000 square miles; and even this estimate is deemed too low by the most careful observers. It is upon the basis that, in that region, skirting the water courses and within the mountain ranges, there are 600,000 square miles not wholly without timber, which is probably true, but it is equally true that at least one half this surface, 300,000 square miles, can furnish but a very meagre supply, and that of an inferior quality.

It will be seen that the totally destitute surface in the timberless region exceeds by more than 460,000 square miles the whole of the once heavily timbered section through which our people have passed.

Having considered what may be done in the latter region towards the protection and reproduction of forests, the inquiry as to the timberless section only remains to be answered. Certain it is that it must, to some extent, be supplied with forests, or it cannot be successfully and densely peopled. Is this practicable? It is practicable, and for the following reasons:

1st. Except in the volcanic regions, which occupy but an inconsiderable surface, the soil is everywhere fertile and productive, and contains all the necessary food for plants and forests. Along the mountain ranges and the border of streams and lakes are fringes of timber, protected from the annual fires which devastate the plains by the moisture from the water courses and the melting snows.

2d. These belts of timber demonstrate the adaptability of the soil and climate to forest productions, and will strew the adjacent plains with plants and seeds, which require only protection to become forests, in their turn furnishing plants and seeds for the circle thus enlarged, and bringing moisture to protect and quicken their growth. Thus, by the simple process of protection, forests may be gradually extended over the great plains, from all the mountains and water courses bordering on or traversing these naked wastes. By plowing large tracts in the vicinity of these timbered belts, and leaving the upturned soil uncultivated to receive the seeds scattered by the birds and wind, the growth of forest plants would be aided and multiplied to an indefinite extent, and thus millions of trees might be grown in place of the hundreds which now struggle up through the unbroken prairie sward.

3d. To the extent that planting has been intelligently performed on the plains, the production of forests has been a success. Trees to the number of millions have been produced from the seed of almost every forest species, by the unaided efforts of a single association in Nebraska; and individual settlers, for the protection of their homesteads, orchards, and crops, have planted with success, though upon a limited scale. Enough, however, has been accomplished to demonstrate the feasibility of clothing the plains with forests by individual and associated efforts.

With these facts and suggestions, the necessity and utility of forest preservation and culture are submitted to the American people, and especially to that portion of them engaged in agricultural pursuits, as measures of paramount importance, and demanding their immediate and considerate attention and decisive action.

FACTS FROM VARIOUS SOURCES.

An Umatilla county, Oregon, correspondent writes that he has an ox six years old which measured, when taken up on the 15th of November last, 17 hands and 3 inches in height, 8 feet 8 inches around the smallest place back of the shoulders, 9 feet 9 inches around the bulge of the ribs, and 8 feet 11 inches just before the hips; this was just as he was taken off the grass, without ever having been fed, winter or summer, except a little before he was four years old. Weight not known, there being no scales in the neighborhood.

[In answer to the correspondent we give the weight and measurement of the celebrated short-horn ox "Constitution," raised by John Saunderson, of Franklin county, Massachusetts, and slaughtered in 1862: live weight, 3,300 pounds; dead weight, 2,473 pounds; 6 years old; length from horns to root of tail, 9 feet 3 inches; height, 6 feet 3 inches; girth back of shoulders, 10 feet 8 inches; girth front of hips, 11 feet 6 inches; breadth across, 3 feet 6 inches. In 1796 a Durham ox, six years old, weighed 3,024 pounds, and after being exhibited for five years dislocated a hip, and after two months suffering and losing much flesh was slaughtered, the dead profitable weight of meat, hide, and tallow, reaching 2,620 pounds.]

The village of St. Albans, Vermont, near lake Champlain and the Canada line, is becoming as celebrated for its dairy products and mineral waters, as it was notorious a few years since for "the raid." During the year 1868 the shipments of butter from that village, mostly on Tuesdays, amounted to 2,606,880 pounds, worth at the depot 40 cents per pound, or $1,042,752. The shipments of cheese amounted to 948,270 pounds, worth 14 cents per pound, or $132,757 80. Mineral water to the amount of 28,204 dozen quart bottles, worth in the aggregate $105,765, was also sent from that depot. The total receipts for the three articles named amount to $1,281,274. The butter and cheese went to the Boston market; the spring water to all parts of the world.

Grand Isle, in Lake Champlain, the largest of the islands composing the county of Grand Isle, Vermont, has an area of 18,153 acres. An intelligent and long-time resident gives a census of some of the products of the island in the year 1868, as follows:

Wheat	14,123 bushels.	Oats	38,564 bushels.
Buckwheat	12,892 "	Corn	18,958 "
Barley	3,514 "	Beans	1,272 "
Peas	1,443 "	Potatoes	12,868 "
Apples, common	15,840 barrels.	Rye	271 "
Apples, from grafts	1,343 "	Wool	51,563 pounds.

Our Fayette county, Tennessee, correspondent says there never has been a more disastrous season for farm stock, there having been great havoc among horses and mules, attributable to the feeding of rotten or immature grain.

An Arkansas correspondent writes:

If we can prevail on Congress to put a tax of $2 on each dog it will enable the south to raise sheep enough to feed themselves and pay their proportion of the national debt. It seems hard that a portion of our people should be allowed to hold a lot of filthy dogs to prey upon the industry of the country. You will do us incalculable good if you will use your endeavors to get a law to tax all dogs.

The chicken cholera destroyed from $600 to $700 worth of poultry in Jefferson county, West Virginia, during 1868. One farmer lost his entire stock of chickens and turkeys.

The grasshoppers took the buckwheat and early sowed fall wheat in Douglas county, Kansas.

Peanuts are reported as the principal money crop of Surry county, Virginia. Large quantities are raised and the crop is remunerative.

Large quantities of sweet corn are raised and canned in Cumberland county, Maine, the crop paying from $80 to $125 per acre.

Our Kendall county, Texas, correspondent writes that not less than fifteen mowing machines were at work on the prairie in that immediate vicinity (Boerne) during the past season, an encouraging mark of improvement in farm operations.

The product of the precious metals in the United States during 1868 is estimated at $66,500,000, divided as follows: California, $20,000,000; Nevada, $18,000,000; Montana, $12,000,000; Idaho, $6,000,000; Oregon, $5,000,000; Colorado, $4,000,000; Washington Territory, $1,000,000; Arizona, $250,000; and New Mexico, $250,000.

The inspections of leaf tobacco at Baltimore for the year 1868 amounted to 37,959 hogsheads against 58,996 hogsheads for 1867, and the exports were 32,800 hogsheads in 1868 against 61,930 hogsheads for 1867, showing a falling off of about 36 per cent. in inspections and about 47 per cent. in exports; of the tobacco inspected 27,064 hogsheads was Maryland, 9,644 hogsheads Ohio, and 1,251 hogsheads Kentucky and other kinds.

The total exports of petroleum from the United States in 1868 reached 99,281,750 gallons against 67,052,029 gallons in 1867, being an increase of nearly 50 per cent.

ITEMS FROM CALIFORNIA.

About a year ago a farm of 160 acres was purchased in Plumas county at a cost of $3,700. The crops raised in the past year were 1,500 cwts. of wheat, 2,000 cwts. of barley, 1,000 sacks of potatoes, 140 cwts. of flaxseed, and $120 worth of mustard seed gleaned from the wheat. The barley sold for $2 per cwt., realizing enough to pay for the farm. The flaxseed sold at $4 per cwt. The entire products of the farm sold for $7,500, or twice the cost of the farm.

The hop crop of California in 1867 reached 457,000 pounds, as reported by the county assessors. The estimated cost of planting, cultivating, picking, and baling 20 acres in this crop is given as follows in the Stockton (San Joaquin county) Independent: 1,400 poles, $1,400; hop roots, $400; planting and cultivating, $300; picking and drying, $250; press for baling, $50; two ploughs and cultivators, $50; 6 hop boxes, $60; 2 crowbars, $5; 40 hop sacks, $40; a pair of horses, $200; wagon and harness, $200—$2,955. Returns: Twenty acres of hops, 1,500 pounds to the acre, 30,000 pounds, at 37½ cents per pound, $11,250. The crop of 1866 sold at from 70 to 80 cents per pound, and that of 1867 realized 50 cents per pound in the domestic markets.

The wheat exportations from San Francisco from June 30 to December 31, 1868, reached 4,770,857 centals against 4,049,992 centals for same time in 1867; and of flour 145,891 barrels against 153,387 barrels in 1867.

The Sacramento Bee says:

We are told that one man in Berryesa valley hired 2,000 acres of land last year, laid it down in wheat, raised 75 bushels to the acre, and at two cents per pound his profit would be over $50,000. Many men we hear of hired land last year in the lower valleys, expended a few thousands in seed and labor, and cleared from $5,000 to $15,000 each.

The steam plough Mayflower (Standish's new patent) is said to be doing its daily work upon the farm of W. Kellebor, near Pacheco, with the regularity of any well-trained team. About 20 acres is the average daily amount of ground cut by the plough, and but for the tendency of the boiler to foam when crowded beyond a certain point, nearly twice that quantity could be equally well done. The boiler has less tendency to foam than at the outset, when it was enlirely new, and is improving in that respect with use; but the inventor is satisfied that the difficulty will be overcome entirely with a boiler differently constructed.

There promises to be a large increase in the culture of the silk-worm in California the present year. The State offers a premium of $300 for every 100,000 cocoons made during the season, and it is estimated that not less than from 40,000,000 to 50,000,000 cocoons will be the result, costing the State about $100,000, which might be largely increased, but for the lack of food for the worms.

The Sacramento Bee says that "from the foot-hills about the city of Nevada to the bay of San Diego, the soil and climate is as well adapted to the product of silk as of wheat, with the probabilities that the production of silk will be by far the most profitable. The demand for mulberry cuttings is great, and eggs are not to be had at any price, the surplus of last season having been sent to Europe. There will be eggs enough, however, after the first crop in the spring."

A California correspondent, writing in reference to silk culture in that State, says that he is informed that there is at this time a very superior variety of the silk-worm cultivated in Georgia. If any of our Georgia correspondents can give us any information upon this point we shall be pleased to hear from them.

The Bulletin announces the arrival at San Francisco of a brig from Tahiti, with about 30,000 pounds of fungus gathered on the trees in the southern part of the Society islands, and packed in bags woven from slips of booroa bark, the same wood from which the orange crates are made. This fungus is in appearance like very thin and dirty India-rubber, and is to be shipped to China for use in making "soup" in the celestial kingdom. The value is about 12½ cents per pound at the islands, and about 100,000 pounds are produced there annually.

William Bikler, of Sonoma county, California, whose ranch embraces from 6,000 to 8,000 acres, has recently drained Tule lake, covering nearly 300 acres, by digging a deep canal about one and a half miles long, at an expense of from $20,000 to $30,000. The soil is exceedingly rich, being decomposed vegetable matter. The editor of the California Farmer acknowledges the receipt of nine potatoes, grown on this reclaimed land, the largest of which weighed 5½ pounds and measured 25 inches in circumference. The nine weighed 25 pounds and 7 ounces.

METEOROLOGY.

[Compiled in the Department of Agriculture, from reports by observers for the Smithsonian Institution. Notes of weather, &c., up to January 16, and tables to January 18. All received after these dates will only be used in the Annual Report, and by the Smithsonian Institution.]

DECEMBER, 1868.

Table showing the highest and lowest range of the thermometer, (with dates prefixed,) the mean temperature, and amount of rain and melted snow, (in inches and tenths,) for December, 1868, at the stations and by the observers named. Daily observations at 7 a. m., and at 2 and 9 p. m.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
MAINE.				°		°	°	*In.*
Steuben	Washington	J. D. Parker	8	38	27	— 8	22.0	2.10
West Waterville	Kennebec	B. F. Wilbur	8	39	31	— 7	19.5	1.60
Gardiner	....do	R. H. Gardiner	8	39	27	—10	20.9	2.04
Standish	Cumberland	John P. Moulton	21	38	25, 27	— 2	21.3	2.06
Norway	Oxford	Howard D. Smith	8	36	27	—18	16.6	2.06
Cornish	York	Silas West	21, 22	34	27	— 8	18.5	2.96
Cornishville	....do	G. W. Guptill	21	36	27	— 1	19.5	2.65
Averages							19.8	2.21
NEW HAMPSHIRE.								
Stratford	Coos	Branch Brown	21	33	27	—20	13.9	2.45
Shelburne	....do	F. Odell	8	36	27	—26	16.2	2.19
North Barnstead	....do	C. H. Pitman	10	54	25	0	22.8	1.69
Goffstown Centre	Hillsboro'	Alfred Colby	21	39	25	0	24.0	1.48
Averages							19.2	1.95
VERMONT.								
Lunenburg	Essex	H. A. Cutting	21	32	27	—30	13.8	2.45
North Craftsbury	Orleans	Rev. E. P. Wild	21	35	19, 27	—10	14.5	2.51
Randolph	Orange	Chas. S. Paine	17, 21, 22	33	27	—24	16.6	2.82
Woodstock	Windsor	Doton & Miller	21	34	27	—25	14.5	2.50
St. Albans	Franklin	A. H. Gilmour	21	35	19	—19	15.3	.....
West Charlotte	Chittenden	Miss M. E. Wing	21	39	24, 25, 26	0	21.9	1.23
Middlebury	Addison	H. A. Sheldon	21	36	27	—13	18.8	1.09
Averages							16.5	2.10
MASSACHUSETTS.								
Kingston	Plymouth	G. S. Newcomb	21	52	25, 27	10	31.0	3.10
Topsfield	Essex	S. A. Merriam	7	43	25, 27	2	23.1	1.21
Georgetown	....do	S. A. Nelson	22, 29	42	25	0	23.5	3.15
Newbury	....do	John H. Caldwell	21	44	25	2	24.9	.....
Milton	Norfolk	Rev. A. K. Teele	21	48	27	4	37.2	1.55
Cambridge	Middlesex	Rev. J. B. Perry	21	42	27	3	26.0	.....
North Billerica	....do.	Rev. E. Nason	28	48	26	1	25.4	.....

Table showing the range of the thermometer, &c., for December—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
MASS.—Continued.				°		°	°	*In.*
West Newton	Middlesex	John H. Bixby	21	45	27	2	26.3	0.88
New Bedford	Bristol	Samuel Rodman	21	48	25	6	28.5	2.23
Worcester	Worcester	Jos. Draper, M. D.	21	44	25, 27	3	23.9	1.85
Mendon	do	Jno. G. Metcalf, M. D	21	44	27	1	22.5	.....
Lunenburg	do	G. A. Cunningham	21	40	25	— 1	22.6	1.53
Amherst	Hampshire	Prof. E. S. Snell	21	40	27	— 5	22.8	1.47
Williams College	Berkshire	Prof. A. Hopkins	21	38	25	0	21.8	2.49
Hinsdale	do	Rev. E. Dewhurst	21	36	19	— 2	19.5	1.89
Averages							25.3	1.94
RHODE ISLAND.								
Newport	Newport	Wm. H. Crandall	21	46	25	5	26.4	2.54
CONNECTICUT.								
Pomfret	Windham	Rev. D. Hunt	21	40	24, 25	4	23.0	1.10
Columbia	Tolland	Wm. H. Yeomans	21	40	24, 27	4	25.7	.....
Middletown	Middlesex	Prof. John Johnston	21	41	25	3	23.5	2.38
Colebrook	Litchfield	Charlotte Rockwell	21	35	11, 24	— 1	19.5	.....
Waterbury	New Haven	Rev. R. G. Williams	21	44	25	2	25.1	3.31
Brookfield	Fairfield	Rev. S. W. Roe	21	48	25	— 2	25.7	3.50
Averages							23.8	2.57
NEW YORK.								
Moriches	Suffolk	E. A. Smith & daugh's	21	54	25	8	32.3	3.92
South Hartford	Washington	G. M. Ingalsbe	21	38	27	—13	21.9	3.15
Garrison's	Putnam	Thomas B. Arden	17	44	24	7	25.2	2.02
Throg's Neck	Westchester	Miss E. Morris	21	48	25	8	28.4	.....
White Plains	do	O. R. Willis	2, 8	50	24	9	28.5	.....
Deaf and Dumb Inst.	New York	Prof. O. W. Morris	21	43	25	10	28.1	4.27
Columbia College	do	Prof. Chas. A. Joy	21	41	25	10	28.0	2.02
Flatbush	Kings	Rev. Eli T. Mack	21	46	25	11	28.9	2.42
Newburgh	Orange	Jas. H. Gardiner	28	44	24	8	26.9	2.14
Minaville	Montgomery	Prof. J. W. Bussing	21	34	19, 27	— 5	18 1	3.40
Gouverneur	St. Lawrence	C. H. Russell	20	39	27	—26	19.3	1.77
North Hammond	do	C. A. Wooster	20, 21	42	24	— 8	20.5	1.97
Houseville	Lewis	Walter D. Yale	20	37	24	— 8	18.2	3.97
South Trenton	Oneida	Storrs Barrows	18	38	26	—10	20.3	3.30
Cazenovia	Madison	Prof. Wm. Soule	20, 29	37	19	— 7	22.2	5.57
Oneida	do	S. Spooner, M. D.	20	40	24	6	23.0	4.00
Depauville	Jefferson	Henry Haas	20	40	24	— 4	20.7	2.90
Oswego	Oswego	Wm. S. Malcolm	20	40	19	6	24.0	5.12
Palermo	do	E. B. Bartlett	20	39	19	— 6	20.0	6.80
North Volney	do	J. M. Patrick	20	40	19	— 3	22.6	.....
Nichols	Tioga	Robert Howell	29	43	12	1	25.3	.....
Newark Valley	do	Rev. Sam'l Johnson	20	40	11	— 8	22.0	3.10
Rochester	Monroe	H. W. Mathews	20	41	24	7	25.8	3.23
Little Genesee	Allegany	Daniel Edwards	20	43	11	—14	22.1	2.45
Suspension Bridge	Niagara	W. M. Jones	20	49	24	6	25.1	2.60
Buffalo	Erie	Wm. Ives	20	40	24	7	25.4	2.25
Averages							24.0	3.29

Table showing the range of the thermometer, &c., for December—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
NEW JERSEY.				°		°	°	*In.*
Paterson	Passaic	Wm. Brooks	21	42	25	5	26.7	4.52
Newark	Essex	W. A. Whitehead	21	43	25	8	28.1	3.85
New Brunswick	Middlesex	Geo. H. Cook	17	42	25	9	27.3	3.32
Trenton	Mercer	E. R. Cook	21	47	25	11	31.2	5.13
Moorestown	Burlington	Thos. J. Beans	20	45	24	11	29.2	2.98
Dover	Morris	Howard Shriver	17, 21, 28	42	11	6	28.0	4.87
Haddonfield	Camden	Samuel Wood	20	45	24	15	30.2	3.52
Newfield	Gloucester	E. D. Couch	7	50	25	10	29.7	.....
Greenwich	Cumberland	R. C. Sheppard	7	50	13	15	32.1	2.92
Vineland	....do	Jno. Ingram, M. D.	21	50	24, 25	10	29.9	4.40
New Germantown	Hunterdon	Arthur B. Noll	17, 21, 28	40	11, 25	8	28.0	1.80
Newton	Sussex	Thos. Regasus, M. D.	17	46	11, 24	6	23.9	2.45
Averages							28.7	3.61
PENNSYLVANIA.								
Nyces	Pike	John Grathwohl	28	43	11	— 8	21.5	1.95
Fallsington	Bucks	Eben'r Hance	28	43	24, 25	13	29.7	3.30
Philadelphia	Philadelphia	Prof. J. A. Kirkpatrick	21	45	24	18	32.6	4.27
Germantown	... do	Thomas Meehan	7	45	25	12	28.7	.....
Horsham	Montgomery	Miss Anna Spencer	30	46	13, 24	11	28.3	2.10
Plymouth Meeting	....do	H. M. Corson	20	47	24	12	29.5	1.19
Dyberry	Wayne	Theodore Day	17	38	11	— 9	21.8	.....
Whitehall	Lehigh	Edward Kohler	5, 21, 28	39	11	1	27.1	.....
Factoryville	Wyoming	R. Sisson	17	38	11	— 4	23.6	1.85
Reading	Berks	J. Heyl Raser	6	44	11, 13	11	30.1	.....
Parkesville	Chester	Dr. F. Darlington	20	44	13	12	29.0	2.42
West Chester	....do	Dr. Geo. Martin	28	48	13	13	30.5	3.14
Silver Spring	Lancaster	H. G. Bruckhart	20	45	26	7	29.0	.....
Mount Joy	....do	J. R. Hoffer	15	47	26	10	30.8	.....
Harrisburg	Dauphin	John Heisely, M. D.	6, 18	38	26	15	28.7	2.82
Fountain Dale	Adams	S. C. Walker	17, 21	42	11	9	27.7	3.10
Tioga	Tioga	E. T. Bentley	17, 20	36	24	—11	17.7	2.05
Lewisburg	Union	Prof. C. S. James	17	41	11	0	24.9	2.14
Ickesburg	Perry	Wm. E. Baker	17	46	11	0	26.3	2.55
Grampian Hills	Clearfield	Elisha Fenton	20	38	13	— 4	20.5	4.55
Johnstown	Cambria	David Peelor	6	47	11	3	26.7	2.90
Franklin	Venango	Rev. M. A. Tolman	20	50	10, 12	0	24.7	3.07
Connellsville	Fayette	John Taylor	20	52	12	0	26.4	.....
New Castle	Lawrence	E. M. McConnell	20	51	11	7	27.0	.....
Beaver Seminary	Beaver	Rev. R. T. Taylor	20	53	11	10	30.7	3.10
Canonsburg	Washington	Rev. W. Smith, D. D	20	57	11, 12	7	28.3	1.69
Averages							27.0	2.68
MARYLAND.								
Woodlawn	Cecil	Jas. O. McCormick	21	55	13	10	29.6	3.61
Annapolis	Anne Arundel	Wm. R. Goodman	21	52	13	12	35.9	3.03
St. Inigoes	St. Mary's	Rev. J. Stephenson	20	52	13, 25	18	33.4	2.70
Emmittsburg	Frederick	Eli Smith	2	52	11	8	28.7	.....
Mt. St. Mary's Coll	....do	Prof. C. H. Jourdan	17	42	12	11	28.3	2.26
Averages							31.2	2.91

Table showing the range of the thermometer, &c., for December—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
VIRGINIA.				°		°	°	*In.*
Surry C. H	Surry	B. W. Jones	20	67	13	10	37.6	.....
Johnsontown	Northampton	C. R. Moore	21	58	13	15	37.4	.....
Comorn	King George	E. Tayloe	.....	.....	25	10	.....	1.42
Mt. Solon	Augusta	J. T. Clarke, M. D	20	62	13	2	34.1	6.00
Lynchburg	Bedford	C. I. Merriwether	20	55	12	14	37.4	.....
Snowville	Pulaski	J. W. Stalmaker	20	63	12	0	30.0	6.10
Wytheville	Wythe	Rev. Jas. A. Brown.	18	50	12	—10	29.5	3.20
Staunton	Augusta	J. C. Covell	20	51	12	9	32.0	2.67
Averages							34.0	3.88
WEST VIRGINIA.								
Romney	Hampshire	W. H. McDowell	28	52	13	4	28.5	.....
White Day	Monongalia	W. H. Sharp, M. D	{17, 19, 20, 28}	50	12	10	33.3	.....
Averages							30.9	.....
NORTH CAROLINA.								
Kenansville	Duplin	Prof. N. B. Webster	.....	.....	.....	.....	.....	.....
Goldsboro'	Wayne	E. W. Adams, A. M	18, 20	65	25	15	41.2	*1.33
Raleigh	Wake	Rev. F. P. Brewer	20	63	12	12	38.7	3.60
Oxford	Granville	W. R. Hicks, M. D.	20	56	12	8	34.0	1.55
Albemarle	Stanley	F. J. Kron	20	64	25	4	35.5	4.44
Statesville	Iredell	Thos. A. Alison	20	55	12	0	32.1	4.75
Asheville	Buncombe	E. I. Aston	20	60	12	— 1	33.5	.....
Do	do	J. T. E. Hardy, M. D.	20	62	12	0	34.0	.....
Averages							35.6	3.13
SOUTH CAROLINA.								
Gowdysville	Union	Charles Petty	19	65	12	4	38 3	.....
GEORGIA.								
Atlanta	Fulton	F. Deckner & Son	20	62	12	6	37.4	5.12
Macon	Bibb	J. F. Adams	20	69	12	13	41.9	5.32
Averages							39.7	5.22
ALABAMA.								
Opelika	Lee	J. H. Shields	20	67	12	11	44.6	4.12
Moulton	Lawrence	Thos. M. Peters, A. M.	20, 30	59	25	12	39.0	2.96
Greene Springs	Hale	H. Tutwiler, LL. D	31	69	25	11	43.3	4.19
Havana	do	S. K. Jennings, M. D.	31	65	25	16	42.6	5.08
Fish River	Baldwin	W. J. Van Kirk	30	69	24, 25	26	.....	2.75
Averages							42.4	3.82
FLORIDA.								
Jacksonville	Duval	A. S. Baldwin	4, 19, 31	72	25	20	57.1	2.05
Port Orange	Volusia	Mrs. E. H. Hawks	31	71	25	22	53.4	.....
Averages							55.1	2.05
TEXAS.								
Columbia	Brazoria	Hennell Stevens	20	81	11	24	51.9	8.84
Waco	McLellan	Edw. Merrill, M. D	19	72	11	18	45.7	4.95
Austin	Travis	J. Van Nostrand	19	74	25	21	48.4	4.96
Averages							48.7	6.25

Table showing the range of the thermometer, &c., for December—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
LOUISIANA.				°		°	°	*In.*
Benton	Bossiere	J. H. Carter	20	76	11	18	44.9	.....
New Orleans	New Orleans	Robt. W. Foster	28	72	25	32	.....	.....
MISSISSIPPI.								
Grenada	Yalabusha	Albert Moore	19	70	25	14	.....	.....
Natchez	Adams	Robt. McCary	19, 29, 30	68	25	16	46.8	4.11
TENNESSEE.								
Elizabethton	Carter	Charles H. Lewis	20	62	12	— 8	32.6	.....
Tusculum College	Green	S. S. and W. S. Doak	19	58	12	— 9	32.2	0.92
Lookout Mountain	Hamilton	Rev. C. F. P. Bancroft	30	58	12	2	39.5	.....
Austin	Wilson	P. B. Calhoun	19	64	12	4	37.3	7.00
Clarksville	Montgomery	Prof. W. M. Stewart	19, 20	59	11, 12	1	33.4	5.37
Memphis	Shelby	Edw. Goldsmith	19	63	11	8	36.6	4.27
Averages							35.3	4.39
KENTUCKY.								
Lexington	Fayette	S. R. Williams	19	58	12	— 2	29.8	3.77
Danville	Boyle	O. Beatty	19	64	12	— 4	35.4	4.13
Louisville	Jefferson	Mrs. L. Young	19	59	12	— 1	31.1	4.01
Clinton	Hickman	Rev. T. H. Cleland	20	55	11	2	28.8	.....
Averages							31.3	3.97
OHIO.								
New Lisbon	Columbiana	J. F. Benner	5, 8	52	11, 12	10	30.3	1.76
Steubenville	Jefferson	Jos. B. Doyle	20	49	12	10	30.1	.....
Painesville	Lake	E. J. Ferris	20	46	12	5	25.8	4.30
Cleveland	Cuyahoga	Mr. & Mrs. G. A. Hyde	20	48	12	3	26.3	1.48
Wooster	Wayne	Martin Winger	20	55	12	2	27.8	0.70
Kelley's Island	Erie	Geo. C. Huntington	20	46	12	1	27.1	0.45
Sandusky	....do	Thomas Neill	20	52	12	0	25.1	0.84
Norwalk	Huron	Rev. A. Newton	20	52	12	0	26.1	0.90
North Fairfield	....do	O. Burras	20	51	12	— 3	26.5	0.69
Westerville	Franklin	Prof. Jno. Haywood	20	51	12	0	27.9	1.45
Marion	Marion	H. A. True, M. D	20	50	12	— 3	25.0	0.87
Hillsboro'	Highland	J. McD. Mathews	19, 20	49	12	— 1	26.3	2.34
Toledo	Lucas	J. B. Trembly, M. D	20	44	12	— 3	25.2	1.06
Bowling Green	Wood	John Clarke	20	50	12	— 3	26.2	2.55
Urbana University	Champaign	M. G. Williams	20	50	12	— 6	25.7	1.57
Bethel	Clermont	Geo. W. Crane	20	52	12	— 4	26.7	3.00
Mt. Auburn Institu'n	Hamilton	Prof. S. A. Norton	14	59	12	2	34.0	0.99
Cincinnati	....do	G. W. Harper	19	55	12	0	29.1	2.07
Do	....do	R. C. Phillips	2	58	12	2	33.1	2.12
Cleves	....do	R. B. Warder	19	53	11	— 5	28.1	1.28
College Hill	....do	John W. Hammitt	20	52	12	— 6	27.3	3.96
Jacksonburg	Butler	I. B. Owsley, M. D	20	52	12	— 9	26.6	2.60
Averages							27.6	1.73
MICHIGAN.								
Monroe City	Monroe	Miss H. I. Whelpley	20	40	12	— 7	20.7	1.30
Litchfield	Hillsdale	R. Bullard	17, 19, 20	36	12	— 2	19.3	2.30
Grand Rapids	Kent	E. S. Holmes, D. D. S	17	44	11, 26	8	24.4	2.27
Northport	Leelenaw	Rev. Geo. N. Smith	16, 17	38	10	10	25.3	1.20
Holland	Ottawa	L. H. Streng	17, 19	42	16	1	26.4	2.29

Table showing the range of the thermometer, &c., for December—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
MICHIGAN—Con.				°		°	°	*In.*
Otsego	Allegan	Milton Chase, M.D.	3	44	26	6	27.0	.....
Copper Falls	Keweenaw	Dr. S. H. Whittlesey	17	34	9	— 4	17.2	0.54
Ontonagon	Ontonagon	Edwin Ellis, M. D	16	40	12, 13	0	23.0	.....
Coldwater	Branch	N. L. Southworth	18, 19	40	12	— 8	21.8	.....
Averages							22.8	1.65
INDIANA.								
Vevay	Switzerland	Chas. G. Boerner	19	57	12	— 2	30.1	2.82
Muncie	Delaware	G. W. H. Kemper, M.D	19	54	12	- 5	26.2	0.85
Spiceland	Henry	Wm. Dawson	19	53	12	— 6	26.0	1.25
Columbia City	Whitley	Dr. F. and Miss L. McCoy.	20	40	12	—10	23.5	0.90
Jalapa	Grant	Albert C. Irwin	19	51	11, 12	— 4	27.8	2.18
State University	Monroe	Prof. C. M. Dodd	19	56	12	—10	27.4	1.54
Rensselaer	Jasper	Dr. J. H. Loughridge	18	48	11	—18	22.2	1.60
Merom	Sullivan	Thos. Holmes	19	56	11, 12	—11	29.1	2.25
New Harmony	Posey	John Chappellsmith	19	58	11	— 2	30.9	1.92
Knightstown 2	Rush	D. Deem	19	52	12	—10	24.5	1.53
Averages							26.8	1.68
ILLINOIS.								
Chicago	Cook	J. G. Langguth, jr	19	48	11	—11	25.3	1.41
Near Chicago	....do	Samuel Brookes	19	44	12	—18	20.2	.....
Marengo	McHenry	O. P. Rogers	19	47	11, 12	—13	20.8	1.38
Golconda	Pope	Wm. V. Eldredge	19	66	11	0	34.9	3.30
Belvidere	Boone	G. B. Moss	17	43	11, 12	—16	20.7	1.40
Winnebago	Winnebago	J. W. & Miss Tolman	17	42	10	—16	18.2	1.30
Rochelle	Ogle	Daniel Carey	19	44	11	—22	20.2	0.80
Wyanet	Bureau	E. S. & Miss Phelps	19	48	11	—18	22.9	1.22
Tiskilwa	....do	Verry Aldrich	19	47	11	—14	20.2	0.75
Hennepin	Putnam	Smiley Shepherd	17	45	11	—16	25.0	.....
Elmira	Stark	O. A. Blanchard	19	47	11	—20	17.9	1.36
Peoria	Peoria	Frederick Brendel	19	54	11	—13	25.0	1.81
Springfield	Sangamon	G. M. Brinkerhoff	19	62	11	—18	25.6	.....
Loami	....do	Timothy Dudley	19	55	11	—18	24.6	3.10
Dubois	Washington	Wm. C. Spencer	19	60	11	— 8	29.7	2.30
South Pass	Union	H. C. Freeman	19	60	11	—10	30.3	.....
Lombard University	Knox	Prof. W. Livingston	19, 30	46	11	—17	22.0	0.40
Manchester	Scott	Dr. J. & C. W. Grant	19	57	11	—15	26.4	2.25
Mount Sterling	Brown	Rev. A. Duncan	19	57	11	—18	25.0	.....
Andalusia	Rock Island	E. H. Bowman, M. D	19	47	11	—12	22.7	.....
Augusta	Hancock	S. B. Mead, M. D	19	52	11	—19	23.5	2.67
Averages							23.9	1.70
WISCONSIN.								
Manitowoc	Manitowoc	Jacob Lüps	17	43	10	— 8	22.0	0.67
Plymouth	Sheboygan	G. Moeller	19	41	10	— 9	19.0	1.10
Hingham	....do	Jno. De Lyser	17, 19	42	10	— 8	20.5	.....
Milwaukee	Milwaukee	I. A. Lapham, LL.D	19	48	11	— 8	22.5	0.88
Appleton	Outagamie	J. C. Foye	19	43	10	— 6	21.5	0.93
Waupacca	Waupacca	H. C. Mead	19	42	10	— 8	20.7	.....
Embarrass	....do	E. Everett Breed	19	36	12	—13	17.8	1.45
Rocky Run	Columbia	W. W. Curtis	17	44	10	—10	20.0	0.72

Table showing the range of the thermometer, &c., for December—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
WISCONSIN—Con.				°		°	°	*In.*
Edgerton	Rock	Henry J. Shints	19	45	10	—14	18.8	1.15
Bayfield	La Pointe	Andrew Tate	16	40	11	— 6	17.2	.....
Averages							24.0	0.99
MINNESOTA.								
St. Paul	Ramsey	Rev. A. B. Paterson	16, 17, 19	36	11	—17	16.4	0.58
Minneapolis	Hennepin	Wm. Cheney	17	37	10	—19	15.2	0.55
Sibley	Sibley	C. W. & C. E. Woodbury.	16	36	10, 11	—20	13.4	0.65
New Ulm	Brown	Charles Roos	19	38	10	—18	16.0	0.61
Sauk Centre	Stearns	S. Bloomfield	5	33	12	—23	12.7	1.53
Averages							14.7	0.78
IOWA.								
Clinton	Clinton	Dr. J. P. Farnsworth	17	50	11	—15	22.6	1.10
Davenport	Scott	D. S. Sheldon	19	45	11	—17	20.1	1.22
Dubuque	Dubuque	Asa Horr, M. D	17, 19	42	11	—10	20.3	2.18
Monticello	Jones	M. M. Moulton	19	42	11	—18	15.0	0.77
Fort Madison	Lee	Dan'l McCready	19	50	11	—20	25.0	1.84
Guttenberg	Clayton	Jas. P. Dickerson	17	44	11	—22	16.2	.....
Mount Vernon	Linn	Prof. A. Collins	19	44	11	—16	19.4	.....
State University	Johnson	T. S. Parvin, A. M	19	50	11	—18	21.2	1.62
Independence	Buchanan	Geo. Warne, M. D	19	43	11	—22	16.8	(?)
Near Independence	do	Mrs. D. B. Wheaton	19	44	11	—24	14.5	0.81
Waterloo	Black Hawk	T. Steed	19	42	11	—19	19.0	.....
Marble Rock	Floyd	H. Wadey	19	48	11	—13	19.6	0.95
Iowa Falls	Hardin	N. Townsend	19	42	10, 11	—12	.....	2.46
Algona	Kossuth	James H. Warren	17	43	10	—17	16.2	.....
Near Algona	do	Ph. Dorweiler	19	38	10	—18	14.4	2.71
Fort Dodge	Webster	C. N. Jorgensen	19	41	10	—18	17.0	1.95
Rolfe	Pocahontas	Oscar I. Strong	19	43	10	—27	12.9	2.07
Fontanelle	Adair	A. F. Bryant	17	42	11	—21	18.8	1.90
Logan	Harrison	Jacob T. Stern	17	45	11	—20	20.0	2.94
Averages							18.3	1.75
MISSOURI.								
St. Louis University	St. Louis	Rev. J. Stractmans	19	59	11	— 4	30.4	2.73
Allenton	do	A. Fendler, M. D	19	64	11	—10	28.5	3.22
Hematite	Jefferson	John M. Smith	17	66	11	— 6	31.8	3.45
Canton	Lewis	George P. Ray	19	56	11	—12	25.7	2.33
Rolla	Phelps	Homer Ruggles	19	68	11	— 8	29.3	2.56
Jefferson City	Cole	Nicolas de Wyl	19	68	11	—12	26.0	1.60
Hermitage	Hickory	Miss Belle Moore	19	62	11	—14	26.9	3.42
Warrensburg	Johnson	J. E. Pollock	19	59	11	—18	27.6	2.25
Harrisonville	Cass	John Christian	19	54	11	—15	26.0	4.86
Oregon	Holt	William Kaucher	18	55	11	—16	24.0	2.17
Bolivar	Polk	J. A. Rau	19	66	11	—13	30.8	4.65
Averages							27.9	3.02
KANSAS.								
Leavenworth	Leavenworth	J. Stayman, M. D	18, 19, 20	46	11	—19	23.0	2.17
Olatha	Johnson	W. Beckwith	19	54	11	—20	24.2	3.50
Baxter Springs	Cherokee	Ingraham & Hyland	19	70	11	— 6	33.8	3.05
Atchison	Atchison	Dr. H. & Miss Horn	17, 18	50	11	—17	24.3	2.20

Table showing the range of the thermometer, &c., for December—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
KANSAS—Cont'd.				°		°	°	*In.*
State University	Lawrence	Prof. H. F. Snow	19	49	11	—16	24.3	2.13
Holton	Jackson	Jas. Watters, M. D.	17, 18, 20	46	11	—19	25.6	2.70
State Agricult'l Coll.	Riley	Prof. B. F. Mudge	28	57	11	—16	25.3	0.81
Council Grove	Morris	A. Woodworth, M.D.	20	50	11	—15	28.0	3.15
Neosho Falls	Woodson	Mrs. E. W. Groesbeck	19	58	11	—16	24.7	0.70
Averages							25.9	2.27
NEBRASKA.								
Elkhorn	Washington	John S. Bowen	2	45	11	—15	20.5	.....
De Soto	....do	Charles Seltz	17	46	11	—15	19.9	2.00
Bellevue	Sarpy	Mrs. E. E. Caldwell	17	45	11	—20	22.5	6.40
Glendale	Cass	Dr. A.L. & Miss Child	17	45	11	—30	19.4	2.10
Dakota	Dakota	H. H. Brown	16	49	11	—19	20.7	.....
Nebraska City	Otoe	Prof. P. Zahner	17	49	11	—17	23.2	2.58
Omaha Mission	Reserve	Rev. Wm. Hamilton	16	48	10, 11	— 8	24.0	1.50
Omaha	Douglass	Chas. B. Wells	17	50	10	—12	21.8	1.81
Averages							21.5	2.73
CALIFORNIA.								
Monterey	Monterey	C. A. Canfield, M. D.	7	66	9	34	51.8	4.30

NOTES OF THE WEATHER, DECEMBER, 1868.

West Waterville, Me.—Mean temperature of month 5.25° below average of four preceding Decembers; moisture 1.23 inches less than average of five preceding; snow-fall 14 inches, and now 18 inches deep in woods. No rain this month.

Gardiner, Me.—River closed 2d; aurora 13th; month remarkable for steady temperature, dryness, small amount of snow, and low barometer, (on 8th, 28.806.) Mean heat of December for 33 years, 22°; moisture, 4.45 inches; this December 20.46°, and 2.04 inches.

Standish, Me.—Faint auroras 10th, 13th; some sleighing 21st, 22d; good after 24th.

Cornish, Me.—Snow-fall 16 inches in December.

Cornishville, Me.—December, average heat for 40 years 21°; this month 19.48°; snow in December 19 inches, now on the ground 8 inches.

Antrim, N. H.—Snow on 2 days in October, 5 in November, and 7 in December; good sleighing all through December.

Shelburn, N. H.—Androscoggin river closed November 30; horses crossed December 2; sleighing good since November 9; snow in woods two feet deep on January 1, 1869.

Lunenburg, Vt.—Month very cloudy, but not usual number of cold, raw, windy days; auroras every fair evening.

North Craftsbury, Vt.—An unusually cold December; temperature of well 40°.

Randolph, Vt.—A steadily cold month; no thaw; 15 inches snow on ground.

St. Albans, Vt.—Seven inches snow in Canada woods on 25th; snow fell to lie a fortnight earlier than usual, and when there was little frost in the ground.

Kingston, Mass.—First skating 3d; many wild geese flying late as 12th, 13th; rain on 4 and snow on 9 days this month.

Topsfield, Mass.—Year closes pleasant, no snow on ground, good wheeling, springs full.

Georgetown, Mass.—Little sleighing, light storms, ice every night but one; ponds, &c., low for the season.

Billerica, Mass.—Sleighing 6th; rain melted the snow 7th; 3 inches snow 27th.

New Bedford, Mass.—Ground slightly frozen, and but little permanent ice formed in December.

Worcester, Mass.—Fair weather 8th to 20th, 23d to 27th, and 30th and 31st.

Mendon, Mass.—Snow 1st, 5th, (5 inches,) 7th, 8th, 20th; Nipmug Great Pond of 107 acres closed first time this season on 11th.

Lunenburg, Mass.—Very little snow on ground; but little sleighing; the coldest year since 1856; December mean heat for 30 years, 28.57°; this year 20.70°.

Amhurst, Mass.—Severe storm of wind, snow, and rain 7th; after the 5th tolerable sleighing through December.

Williamstown, Mass.—A wintry month, with good sleighing nearly throughout.

Columbia, Conn.—Snow on 5th, 10 inches; 23d, 2 inches; 27th, 2 inches; rain on 7th, 20th, 29th.

Middletown, Conn.—Last steamer from New York, 6th; Connecticut river closed 11th.

South Hartford, N. Y.—Lake Champlain closed at White Hall, 1st; canal, 7th; December mild, pleasant; good sleighing; snow-fall 31.5 inches; ground frozen 10 inches.

North Hammond, N. Y.—St. Lawrence frozen over, 25th; very sudden and frequent changes of temperature, and greatest snow-fall, (20.95 inches,) in many years.

Depauville, N. Y.—Faint aurora, 9th; average December temperature for four years, 23.05°; this month 2.3° below; in 1868, rain on 76, thunder storms on 12, snow on 52, sleighing on 82 days; aurora on 39 nights, below zero 21 mornings, between spring and fall frosts 129 days, mean temperature of the whole year 43.4°.

Palermo, N. Y.—Coldest December, and with greatest snow-fall (68.75 inches) in 15 years. The year 1868 has also been the coldest in 15 years; snow-fall 168.5 inches; rain-fall (38.8 inches) was below average. The year was free from untimely frosts, floods, violent storms, &c.

North Volney, N. Y.—A cloudy, stormy month, with about five feet of snow, more than ever known at this season.

Nichols, N. Y.—Cold commenced with the month; by 8th snow was 18 inches deep. The Susquehanna was crossed by teams 16th to 28th.

Little Genessee, N. Y.—A wintry, cloudy month; snow sometimes two feet deep.

Buffalo, N. Y.—Month 4.25° colder than average December mean for 10 years; good sleighing after 4th; harbor closed 9th; but lake open yet at this end.

Newark, N. J.—Month of equable temperature, but 4½° below average of 25 Decembers.

Moorestown, N. J.—Ground not covered with snow this month.

Dover, N. J.—First skating, 3d; canal and ponds closed, 9th; fine sleighing, 11th; slight thaw, 17th; freeze, 18th; rain and slippery walking, 20th.

Newfield, N. J.—Month of much foul and variable weather; mean temperature nearly 2° lower than last December; mean temperature of

1868, 51. 2°; days without frost (April 27 to September 18) 143; mean temperature of those days 69. 8°.

Greenwich, N. J.—Month equably cool; maximum temperature a little lower, and minimum temperature a little higher than usual; mean temperature of 1868, 51. 87°; rain-fall 47.63 inches.

Fallsington, Pa.—Delaware river closed, 13th. Month equably cold, but generally fine weather.

Philadelphia, Pa.—Schuylkill at Market street bridge closed, 24th; rain commenced on 31st, and continued into the new year.

Horsham, Pa.—Ground first whitened with snow, 4th; greater part of month mild with fewer snow and other storms than usual.

Dyberry, Pa.—Snow 4th to 5th, (10 inches,) 7th to 8th, (12 inches,) a robin seen 19th; good sleighing since 4th; snow-fall 25.4 inches; means of 1868, 7 a. m., 38.1°; 2 p. m., 54.40°; 9 p. m. 42.2°; of all, 44. 9°; snow-fall, 121 inches.

Factoryville, Pa.—A straight, cloudy winter month thoughout; winds light; sleighing good; snow-fall 19 inches, and but little has melted away.

Fountain Dale, Pa.—Ice on mill-dam, 12 inches, 8 clear; month cold and snow on ground throughout. 1868, mean temperature 50. 20°; rain-fall, 44.6 inches; snow-fall, 72.9 inches.

Tioga, Pa.—River closed, 4th; pleasant winter month; good lumbering; snow covering ground all the time.

Ickesburg, Pa.—Saw a kingfisher, 12th; peach buds yet safe, 14th.

Grampian Hills, Pa.—Month steadily cool, but no extreme; but two days above 32°, and one the mean above 32°; yet only one below zero. Snow-fall, 45.5 inches, badly drifted; much cloudy weather.

New Castle, Pa.—Month of nearly same temperature as in 1866, 1867.

Woodlawn, Md.—Susquehanna full of ice, 9th; frozen over 11th.

Mt. St. Mary's, near Emmittsburg, Md.—Mean temperature of 1868, 49. 36°. Rainy days, 144; rain-fall, 47.76 inches.

Johnsontown, Va.—Heaviest snow-storm, (all day,) from northeast and north; most of rains this year came from southwest, some from northwest.

Comorn, Va.—Rappahannock frozen over, 12th, for a week; on 22d entirely free from ice again.

Lynchburg, Va.—Two freezes in December, very uncommon here.

Wytheville, Va.—Ground white with snow, first time, 1st; coldest day this year, 12th.

White Day, W. Va.—Snow on 1st, 7th, 8th, 23d, 30th; White Day creek frozen over, 10th; open, 16th; closed, 23d; open, 31st.

Albemarle, N. C.—Wild geese flying south, 24th; from 26th to close no sunshine.

Statesville, N. C.—Thermometer at zero on 12th; lowest known here in December; rain-fall of 1868, 61 inches.

Gowdysville, S. C.—White frost and ice, 1st, 2d, 3d, 6th; very cold, 11th, 22d, 25th; November and December unusually cold for this climate, and winter earlier than usual.

Atlanta, Ga.—December remarkably wet and cold; mean temperature, 37. 4°. Second crop strawberries ripened up to 12th.

Opelika, Ala.—December 31, like spring; frogs singing.

Moulton, Ala.—December 5, white frost, followed by a fair, pleasant day; and, at 2 p. m., a noise like thunder was heard for five minutes. During same day a meteor was seen, the explosion of which was heard 45 miles.

Green Springs, Ala.—On 5th, about 4 p. m., a fire ball seen here, 40

miles S. and at Elyton, N., where its explosion was heard. On 12th and 25th boys skated on pond.

Ocala, Fla.—Severe frosts on 25th and 26th, said to have killed the young orange trees planted last year and this.

Port Orange, Fla.—Ice ¼-inch thick on 25th east of Halifax river, freezing oranges on the trees and killing orange seedlings and other semi-tropical plants.

Jacksonville, Fla.—December average temperature for 15 years 55.90° this December 57.14°, and yet 25th was lower than for several years, doing much injury to semi-tropical trees and plants—most of which, as lemons and oranges, will probably survive and recover in time. Average mean temperature of 15 years 69.56°; of 1868, 66.08°.

Austin, Texas.—Frost on nine mornings, and more rain than in any December since 1857.

Grenada, Miss.—Two inches snow on 26th; three peals of thunder in southwest at noon on 31st.

Natchez, Miss.—Excessive cold 25th; December had 2 clear, 6 rainy, and 23 cloudy days.

Memphis, Tenn.—In 1868 rain fell on 118 and snow on 6 days; melted snow and rain 50.47 inches; above summer heat 159, and below freezing point 73 days. Mean temperature of 1868, 60.15°.

Lexington, Ky.—Mean temperature of 1868, 53.64°; rain-fall 52.79 inches.

Kelley's Island, O.—On 11th ice nearly covered lake between island and Marblehead; Sandusky bay closed 8th; bright diffused aurora 17th.

Hillsboro', Ohio.—Average mean temperature of eight years, (being little more than for 30 years,) 51. 25°; rain-fall, average of eight years, 47. 079 inches. Mean temperature of 1868, 49. 808°; rain-fall, 49. 472 inches.

Urbana, Ohio.—Ice eight inches thick, 18th; aurora, with uniform white light, 18th; snow gone, 20th, after laying 13 days.

Grand Rapids, Mich.—Sleighing 7th, and, except two days, continued good to 31st.

Northport, Mich.—One of the mildest Decembers in many years; scarcely snow enough for good sleighing.

Holland, Mich.—Snow fell on 18 days in December.

Otsego, Mich.—Two feet snow, light and dry, but little drifted; no frost in ground in woods and fields.

Vevay, Ind.—Much ice in the Ohio river, 17th; ground nearly free of frost, 20th; river full of ice, 25th; ice disappearing, 28th.

Merom, Ind.—Wabash river frozen over, 10th; ice left river last night, 20th.

Chicago, Ill.—First snow-storm of season, 1st; river frozen over and navigation closed, 14th.

Belvidere, Ill.—Meteoric display on 11th, from 7 p. m. till after midnight; numerous large meteors, mostly from east and south, and much brighter than in November; brilliant aurora 17th. First part of December severe; after that mild. Mean temperature of 1868, 44. 49°.

Winnebago, Ill.—Averages for 11 years: mean temperature, 46°; rain-fall, 36. 35 inches; snow, 47. 41 inches. For 1868: mean temperature, 45. 02°; rain, 45. 14 inches; snow, 40. 8 inches, without frost. May 20 to September 16, (117 days,) mean temperature 71. 24°.

Hennepin, Ill.—Except four days, (9th to 12th,) month was equable, and good for out-door work.

Dubois, Ill.—The 11th was coldest morning since January 1st, 1864. Mean temperature of December 1° below average of 4 years.

South Pass, Ill.—The cold of 11th killed buds of tender peaches; Early Crawfords supposed to be generally frozen.

Manitowoc, Wis.—River frozen over, 2d; auroras, 10th and 17th.

Plymouth, Wis.—Good sleighing till 18th, when snow disappeared. Averages for four years: December, mean temperature, 20°; rain-fall, 1.5 inch. This December, mean temperature, 19°; rain-fall, 1.1 inch. Mean temperature, (1868,) 42.75; rain-fall, 36.5 inches.

Milwaukee, Wis.—River closed, 2d; opened, 4th; finally closed, 8th.

Embarrass, Wis.—Wolf river closed, 5th; faint auroras, 5th, 10th.

Rocky Run, Wis.—Aurora, 19th. Except from 9th to 12th, the month has been uncommonly mild.

Bayfield, Wis.—Brilliant aurora, with heavy, dark arch, 17th; La Point bay frozen over, 24th.

Minneapolis, Minn.—First sleighing 6th; continued through month.

Sauk Centre, Minn.—Aurora 11th; bright light of pale cherry color; another 18th; pale green tint. Snow on ground 16 inches; 18-inch ice on lakes; ground frozen two feet on prairie.

Clinton, Iowa.—Snow 7th, four inches; river closed 10th, and unusually cold, stormy December.

Monticello, Iowa.—South fork of Maquoketa river frozen over December 12, 1865, 13th, 1866, 1st, 1867, 11th, 1868.

Guttenburg, Iowa.—Mississippi closed 11th; teams cross 26th.

Marble Rock, Iowa.—Coldest days ever known in December, 9th to 12th, inclusive; since then pleasant.

Algona, Iowa.—Coldest December known here; last part pleasant winter weather.

Near Algona, Iowa, (10 miles southwest.)—Aurora 10th and 17th; snow on 9 days, (27.1 inches,) and good sleighing all December.

Rolfe, Iowa.—Diffused aurora 10th; one rainy and 10 snowy days; ground frozen a foot deep.

Fontanelle, Iowa.—From 2d to 6th, 18½ inches snow; coldest December in two years.

Hematite, Mo.—Up to 12th, coldest December ever known here; the whole month unusually severe, but peaches not yet injured.

Oregon, Mo.—Snow-storm 6th; roads filled with drifts 7th; faint aurora 17th.

Leavenworth, Kansas.—Peach buds killed 10th; teams cross Missouri river on the ice 11th; coldest weather ever felt in Kansas.

Atchison, Kansas.—Snow storm of 24 hours 6th and 7th; Missouri river closed 11th; opened 19th; closed again 24th; mean temperature of 1868, 53.36°; rain-fall, (including snow,) 37.48 inches; snow 27.5 inches; no frost from April 10 to September 17.

Holton, Kansas.—Coldest morning in Kansas 11th, and December one of the coldest and most disagreeable months known.

Manhattan, Kansas.—Coldest day ever noted here 11th; December was a dry month.

Council Grove, Kansas.—The snow storm of 5th and 6th has no parallel in the memory of "the oldest inhabitant" here.

Elkhorn, Neb.—Snow 2d, 3d, (10 inches;) 4th, 5th, 6th, (4 inches;) 9th, 12th, 26th, 27th, (with distant thunder;) 31st, (1½ inches;) in all 15.5 inches; auroras 17th, 19th.

Glendale, Neb.—From 3d to 13th snowy; drifts 15 feet; roads almost impassable; otherwise good month for business.

Nebraska City, Neb.—Missouri river closed 9th. First week of December cold, and 16 inches snow fell; last three weeks fine winter weather.